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REAUTHORIZATION OF THE PRICE-ANDERSON ACT

HEARINGS

BEFORE THE

SUBCOMMITTEE ON NUCLEAR REGULATION

OF THE

COMMITTEE ON ENVIRONMENT AND PUBLIC WORKS

UNITED STATES SENATE

NINETY-NINTH CONGRESS

FIRST SESSION

ON

S. 445, S. 1225, and S. 1761

BILLS TO AMEND THE PRICE-ANDERSON ACT

OCTOBER 22, AND 23, 1985

PART 1

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REAUTHORIZATION OF THE PRICE-ANDERSON ACT

TUESDAY, OCTOBER 22, 1985

U.S. SENATE,
COMMITTEE ON ENVIRONMENT AND PUBLIC WORKS,
SUBCOMMITTEE ON NUCLEAR REGULATION,
Washington, DC.

The subcommittee met, pursuant to notice, at 9:30 a.m., in room SD-406, Dirksen Senate Office Building, Hon. Alan K. Simpson (chairman of the subcommittee) presiding.

Present: Senators Simpson, Stafford, Gorton, Bentsen, Hart, and Mitchell.

OPENING STATEMENT OF HON. ALAN K. SIMPSON, U.S. SENATOR FROM THE STATE OF WYOMING

Senator SIMPSON. The hearing will come to order.

My sincere apologies, I had another meeting that I could not forgo.

It is good to have you here. We are going to begin 2 days of hearings to consider an issue of vital importance and considerable significance, and that is the reauthorization of the Price-Anderson Act, the nuclear indemnity and insurance legislation.

This morning's hearing will focus on the application of that act to activities undertaken by the Department of Energy through contracts, involving both civilian and defense related nuclear programs. As part of our inquiry today, the subcommittee will devote considerable attention to the issue of liability for activities of DOE contractors engaged in the High-Level Radioactive Waste Disposal Program, which is surely an issue of widespread interest to many of us on the subcommittee and the full committee, and to those of you here today who will be testifying.

We have three bills that we are looking at in the committee: One introduced by Senator Hart, the ranking minority member of the subcommittee, with whom I have greatly enjoyed working for many years, S. 445; one introduced by Senator McClure and myself, S. 1225; and S. 1761, introduced by the chairman of the full committee, Senator Stafford.

We will be most interested in the comments of the witnesses on each of those proposals, and we will be looking to you to assist the subcommittee in its task of fashioning some reasonable, equitable, and efficient mechanism for resolving the complex question of liability that arises under DOE's Contractor Program.

We also have a report from DOE on the contractor provisions recommending an extension of the Price-Anderson Act authority with some modifications.

I do apologize to those of you here for inconveniences you suffered the last time we rescheduled. We will proceed today until we conclude, and I will remain here to meet that need. I appreciate your patience and thank you for bearing with us as we tried to find another convenient time.

We have a full slate of witnesses, and accordingly, I urge all of you to remain within the time limit on oral statements in order for the members to have ample time to ask questions. I thank you all for coming, and I look forward to a productive session.

I recognize at this time the chairman of the full Committee on Environment and Public Works, if he has anything to add. I appreciate very much the leeway and tolerance he expresses to the chairman of the Subcommittee on Nuclear Regulation.

OPENING STATEMENT OF HON. ROBERT T. STAFFORD, U.S. SENATOR FROM THE STATE OF VERMONT

Senator Stafford. Thank you very much, Mr. Chairman.

First, I would like to express my appreciation to you, the chairman of the subcommittee, for your leadership in conducting these hearings. I look forward to continuing to work together with you and other members of the committee.

I believe that we need a Price-Anderson system to provide assurance that in the event of a major nuclear incident, the victims will receive full, fair, and timely compensation for their injuries. Compensation could be delayed by years of litigation without such a system.

Resolving nuclear liability issues is particularly important now with the Department of Energy's High-Level Waste Program. In order to enhance public acceptance of the program, there must, I believe, be an assurance that citizens of repository States will not be forced to bear the risk of uncompensated damage in the event of a nuclear accident.

The Price-Anderson system involves a balancing of many goals and interests. One major goal is to assure speedy and full compensation for victims. Another is to promote the accountability and responsibility of persons involved in or benefiting from activities that create the risk of an incident by requiring them to pay for damages from an incident. This balancing is not easy.

I have introduced a bill, along with an amendment, in which I have attempted to accommodate these interests. In introducing this bill at this time, I simply hope to add to the scope of alternative approaches that the committee may consider. I also hope to hear comments from the witnesses on this approach.

Thank you.

Senator Simpson. Thank you very much, Mr. Chairman.

The ranking member of the full Committee on Environment and Public Works, the Senator from Texas, Lloyd Bentsen is next.

OPENING STATEMENT OF HON. LLOYD BENTSEN, U.S. SENATOR FROM THE STATE OF TEXAS

Senator BENTSEN. Thank you very much, Mr. Chairman. I am very pleased to have a chance to hear the testimony on liability coverage. I think that it will be of great importance to us in my State of Texas which is the potential site of a high-level waste repository, and also Vermont and other States that share that same kind of concern.

There is a myriad of questions surrounding that issue, some of which I hope will be addressed this morning. I won't have the opportunity to hear all of the testimony since I am also participating in the budget conference, which is a very exciting conference that will probably last the rest of this month, which up until now has not accomplished very much.

I am particularly concerned that we establish, in advance of any possible accident, a mechanism for assuring potential victims that they will be promptly and appropriately compensated for any injury or damage that they have suffered.

Vague suggestions that Congress should consider taking action in the aftermath of a disaster is not and should not be enough to take care of the concerns of those whose health, home, and livelihood might be threatened by a high-level waste repository.

We need to find a way to take care of people who have been injured by a nuclear waste accident. I am sure that none of us underestimates the complexity of that task, but we also need to address the issue of who should pay for this liability system. Should it be the generators of the high-level nuclear waste? The consumers of nuclear power? The taxpayers?

I hope that our witnesses today will address that question as well.

A discussion of Price-Anderson, in this context is extremely timely in light of the ongoing Waste Repository Program. While I am confident that the Department of Energy will recognize that a waste repository sited under the Ogalala aquifer is not a good idea, residents around any waste repository deserve to know that Congress has considered the extra risk they are exposed to and has addressed their concerns by crafting liability coverage that will be responsive to their needs.

Thank you very much.

Senator SIMPSON. Thank you very much.

Now let me recognize the ranking member of the Subcommittee on Nuclear Regulation, Gary Hart, who I have served with either as chairman or ranking member for some 7 years, always in a spirit of cooperation on some very tough issues, and this is another one. I appreciate your assistance throughout that time.

OPENING STATEMENT OF HON. GARY HART, U.S. SENATOR FROM THE STATE OF COLORADO

Senator HART. Mr. Chairman, you obviously have the support and encouragement of all members of the subcommittee and full committee in revisiting again the issue, really a deep philosophical issue of responsibility. At the center of our free enterprise system is a sense that those who deliver services and goods should be responsible for the quality of those services and goods, and that at any time the public sector, in the form of some level of government or other, subsidizes the liability for any poor performance in delivery of services or goods, that is an inducement or encouragement to reduce one's own sense of responsibility for performance. That is really, at least as far as this Senator is concerned, what is at the center of the Price-Anderson discussion.

We are entering the fourth decade of private delivery of energy from nuclear power, and there have been reams and volumes of assurances as to the safety of this source of power throughout that period, and increasingly so in the last 5 or 10 years. The public wonders if this is as safe a source of power as it is held to be, and why should they, the taxpayers, subsidize any possible failure in the delivery of power from nuclear sources.

The bill that I have introduced would eliminate that public subsidy and thereby force greater assurances that the delivery of those services and that energy is as safe as its supporters claim. I think there is a direct relationship between how an entity performs and the degree to which it is going to be responsible for its malperformance or misperformance and that is really the issue, it seems to me, in this question.

Senator SIMPSON. Thank you very much, Gary.

Now we will begin with Mr. James Vaughan, Mr. Ben Rushe, and Ms. Kuznick. Nice to have you here with us. If you would proceed please under that time constraint, I thank you.

STATEMENT OF JAMES W. VAUGHAN, ACTING ASSISTANT SECRETARY FOR NUCLEAR ENERGY, DEPARTMENT OF ENERGY, ACCOMPANIED BY SUSAN KUZNICK, OFFICE OF GENERAL COUNSEL

Mr. VAUGHAN. Mr. Chairman, it is a pleasure to be here this morning to discuss the Department of Energy's position on extending Price-Anderson, which we also consider to be a matter of vital national importance.

Mr. Rushe will separately testify on how Price-Anderson should be modified to explicitly cover civilian high level radioactive waste activities. Ms. Kuznick will assist us in responding to the subcommittee's questions, but she does not have a separate statement.

In addition to our prepared statements, which I do ask be made a part of the hearing record, we have provided answers to the prehearing questions posed in your letter of invitation.

Senator SIMPSON. Without objection, that will be entered.

Mr. VAUGHAN. In 1983, both the Department of Energy and the Nuclear Regulatory Commission submitted reports to Congress recommending continuation of Price-Anderson as it applied to our respective activities. Amendments to the Price-Anderson Act were also proposed by both organizations. These recommendations still apply today with one clarification.

In the Department's August 1983 report, we recommended that a liability limit for DOE contractors equal that provided for NRC licensees. DOE anticipated at that time that NRC would recommend an absolute liability cap. When the NRC issued its report in December 1983, the NRC recommended that the absolute limitation be changed to an annual limitation, a position with which the Department does not agree.

First, let me briefly summarize how Price-Anderson affects DOE operations. Although the Department's contractors have compiled an excellent safety and health record over the past three decades, the nature of a nuclear accident is such that a system of financial protection that provides the Department with authority to indemnify its contractors and subcontractors involved in nuclear activities is necessary for the Department to carry out its statutory mission. Without some form of indemnification, contractors at all levels may well refuse to continue doing business with the Department.

Second, let's briefly look at the related subject of commercial nuclear power safety. To date, only 115 incidents have been reported to the commercial nuclear insurance pools which began operating in 1957. During this period, $43 million has been paid for third-party claims. Payments due to the accident at Three Mile Island represent $41 million, or more than 95 percent of this total. Notwithstanding the nuclear industry's proven safety record, the lack of familiarity of the public with nuclear power and the attention given to any abnormal nuclear occurrence, however minor, does continue to raise fears, even though most of these have no factual basis.

It is our conclusion that the financial protection made available by the present Price-Anderson system balances the limited liability granted to the nuclear plant operator and others that may be liable against the certain, rapid, and widely available compensation for the public. Any changes or reforms that would alter this balance should be considered with great care.

Next, in response to your request, I would like to briefly discuss the three Senate proposals that would extend and modify Price-Anderson.

S. 445 would remove the limitation on liability and would also eliminate the requirement that extraordiary nuclear occurrence must be declared to trigger the requirement that defendants must waive certain defenses which are ordinarily available to them under tort law.

Adoption of this proposal would mean that the waiver of defenses provision would apply for paying claims arising out of any nuclear incident. The requirement to waive defenses would, therefore, leave members of the nuclear industry unable to use certain defenses generally available under tort law, and this would appear to be somewhat punitive treatment of the nuclear industry.

S. 1225 would increase the financial protection available to the public as a result of DOE contractor activities. Under this proposal, which is tied to the formula for NRC licensees, the limit on liability could approach $2.4 billion depending on the number of licensed reactors and the retroactive premium assessed each reactor.

S. 1225 would explicitly apply Price-Anderson to DOE activities involving transportation, storage, and disposal of nuclear waste and spent fuel, and Mr. Rushe will expand on this particular subject.

S. 1761, as modified by amendment 770, would continue to limit to $500 million the liability of only those DOE contractors not engaged in high-level radioactive waste management activities. Liability limits for DOE contractors engaged in the high-level waste activities would be eliminated, as would liability limits for NRC licensees.

In comparing these three proposals, I would simply note that a system of financial protection that would include provisions similar to S. 445 and S. 1761, as amended, would no longer balance the public's need for rapid, certain, and widely available compensation, and industry's needs for protection that is otherwise available under existing tort law. It is unlikely that a system of financial protection, which provides the public with prompt and certain payment, could exist if the balance between the public's needs and industry's needs is not equitable.

By contrast, S. 1225 appears to reflect this important balance. Accordingly, the Department of Energy does not support changes that would implement unlimited liability, change the definition of an extraordinary nuclear occurrence, or otherwise expand Price-Anderson coverage for minor nuclear incidents.

Under the existing act, Congress has wisely reserved the opportunity for further review after prompt, assured payments within the liability cap have been exhausted.

Let me, therefore, summarize by offering two guiding principles that should lie behind any proposal that modifies Price-Anderson.

First, a Federal system of financial protection should continue to exist; second, any system of financial protection must balance the needs of the public and of the industry in some equitable manner. I submit that the Price-Anderson system has worked throughout its 28 years of existence because it balances the public's desire for financial protection against extraordinary nuclear occurrences, and industry's, and the Department's concern for limited liability.

We must recognize that there are some things that both DOE contractors and NRC licensees give up to achieve this balance. In the case of the extraordinary nuclear occurrence, they waive certain legal defenses otherwise available under State tort law, they accept liability for any extraordinary nuclear occurrence, and they are able to provide funds to respond quickly on behalf of all parties.

The system is a good one. Let's update it, but let's radically change it.

This concludes my remarks, Mr. Chairman. I would be pleased to respond to questions, or wait until Mr. Rusche has completed his oral statement.

Senator SIMPSON. I thank you very much.

Mr. Rusche, please, if you would proceed.

STATEMENT OF BEN RUSCHE, DIRECTOR, OFFICE OF CIVILIAN RADIOACTIVE WASTE MANAGEMENT, DEPARTMENT OF ENERGY

Mr. RUSCHE. Mr. Chairman and members of the subcommittee:

Thank you for the opportunity to participate in your important review of the Price-Anderson Act. I will focus my attention on the deliberations as they relate to indemnification of the Nation's high-level nuclear waste disposal programs.

First, I would hasten to point out that we hold the view and operate with the recognition that present Price-Anderson coverage applies to the Department's high-level nuclear waste activities. Section 170(d) of the Atomic Energy Act authorizes indemnification not only for nuclear reactors, but for other activities under contract for the benefit of the United States. Thus, the Department has executed contracts with the owners and generators of spent fuel and high-level waste under which DOE agrees to take title of the material and provide transportation to a DOE facility and dispose of such material.

Those contracts stipulate that a Price-Anderson indemnity agreement will be included in DOE contracts for the operation of DOE facilities handling disposal of such high-level waste and spent fuel. The agreement will apply to nuclear incidents at a central location, or in the course of transportation to and from a central location. The indemnity provisions will continue beyond the term of the disposal contracts.

We are aware that some would be more comfortable if the present language of the statute were rewritten for explicit coverage of nuclear waste activities for purposes of clarification. We support making the Price-Anderson coverage explicit to high-level radioactive waste program activities while restating our conviction that the present language of the Price-Anderson Act already permits indemnification coverage for nuclear waste operations.

One area deserving the particular attention of this committee, however, is the waiver of defenses provision of Price-Anderson which, as presently written, does not explicitly apply to nuclear waste activities. The Department supports language to clearly extend that provision to waste activities.

The provision imposes what amounts to strict liability for any event found to be an extraordinary nuclear occurrence. This provision would be a great benefit to claimants in that it streamlines the processing of claims. The Department recommends that this extraordinary nuclear occurrence facilitation procedure apply to incidents connected with civilian and defense high-level waste and spent fuel activities including transportation, storage, and disposal operations.

With respect to whether the present Price-Anderson indemnification limitation is adequate to provide sufficient coverage for any incident which could possibly be anticipated in the nuclear waste field, I would refer back to the original intent of Price-Anderson.

The Congress clearly intended, as explicitly provided in 42 U.S.C. 2210(e), that in the event of a nuclear incident involving damages in excess of that amount of aggregate liability, the Congress will thoroughly review the particular incident and will take whatever action is deemed necessary and appropriate to protect the public from the consequences of a disaster of such magnitude.

I have seen no definitive method of arriving at a precisely appropriate upper limit for liability. It is my belief, however, that the Congress acted wisely in stipulating an upper limit for providing rapid, assured funds, while reserving for itself the responsibility to take whatever action may be called for in the future to assure that necessary public protection is provided.

The foregoing observations are also germane to whether an altogether separate scheme of indemnification is needed for high-level waste activities. To summarize, we think not for three reasons: The present system has been crafted in a sufficiently broad manner to encompass both defense and commercial high-level waste programs; the ENO provisions can be readily broadened to encompass waste activities, and the limit of total liability coverage is tied to a firm commitment by the Congress to revisit any incident where loss exceeds coverage to assure public protection.

Nuclear waste entails no inherently unique characteristics to warrant a separate system from other nuclear operations. In designing the Price-Anderson system, Congress has provided the public with an assured, substantial, and timely source of funds for payment of claims in the event of a nuclear accident. This broad concept has worked well. We believe that the system should be preserved and applied to the activities conducted in compliance with the NWPA.

Finally, in consonance with one of the fundamental guiding principles of the NWPA, the Department believes that liability coverage for high-level waste programs should be financed out of the nuclear waste fund. This administration strongly endorses the concept that the cost of governmental services should be borne by the beneficiaries of those services, rather than assessed to the general taxpayer.

The concept of passing through the cost of governmental services has long been established in the nuclear industry in the licensing fee charge which the NRC assesses licensees.

As the Congress stipulated in the Nuclear Waste Policy Act of 1982, the fund is financed by fees paid by those who will benefit from this program, that is those generating the wastes. This applies to high-level waste resulting from defense activities, as well as that commercially generated since the President recently approved the Secretary of Energy's recommendation that high-level nuclear wastes generated in connection with national defense programs use the same deep-geologic permanent repositories to be developed for commercially generated nuclear waste.

The exact cost breakouts for payments into the fund will be determined on the basis of discussions currently underway to develop an equitable cost-allocation system between these two sources. It is from these revenues into the fund that liability coverage should be provided.

Mr. Chairman, this concludes my testimony. I will be pleased to follow up on any of these observations or to answer any questions.

Senator SIMPSON. Thank you very much, Mr. Rusche.

Let me ask a question or two here, and then go to the other members of the subcommittee and the full committee.

If the Congress were to allow the Price-Anderson Act to expire, what impact, if any, would this have on your ability to carry out the civilian and defense related nuclear activities with your contractors.

Mr. VAUGHAN. Mr. Chairman, as I noted in my oral statement we believe that the contractors would, in many cases, seriously question their ability to continue to do business with the Department because of the special and unique nature of nuclear activities.

We believe that this is a risk that we don't need to take because the history of the Price-Anderson system shows that it is fair and equitable, provides a level of assurance, and has not cost the Government any significant amount of funds over the years.

Obviously, if Congress in its wisdom chose to let it expire, the Department would have to work under alternative contracting arrangements, which we would have to devise.

Senator SIMPSON. That is what I would be interested in. Is this indemnification authority of Price-Anderson essential, in your judgment, to carry out your programs, or do you have other statutory authority under which you could act to achieve your objectives?

Mr. VAUGHAN. The biggest concern, I believe, would be for the multiple subcontractors who work for our prime contractors because they are protected against the enormous liability should, for example, a small component that they furnish be considered to be the cause of an extraordinary nuclear occurrence. In that sense, I think that it becomes a central focal point of our way of doing business.

Senator SIMPSON. Let me ask you this, and I think that it is good for the record because we get into the esoteric here and forget the actual simple essence of this. If you would explain, to me at least, how the indemnification authority for the DOE contractor activities work.

If you had an accident, involving a contractor, and as a result the court awarded $500 million to the plaintiffs, where does this money come from, and how do these claims get paid off?

Does the money come from DOE, or does the money come from the judgment fund, or somewhere else?

Must the Congress take any action, such as an appropriation, before these claims are paid?

Mr. VAUGHAN. If I may, I am going to let Ms. Kuznick respond to that.

Ms. KUZNICK. Luckily, we have never had to address the issue. The Price-Anderson Act permits us to make obligations in advance of appropriations, but there are no appropriated funds sitting in a pool or a fund somewhere that we could use.

There is a provision in the act which allows us to use any of our existing funds to make emergency payments under the Price-Anderson Act. We could possibly get a supplemental appropriation, or we could get funds out of the judgment fund if we worked through the Department of Justice in litigating those cases. But which method would be used, we are not certain right now.

Senator SIMPSON. What about claims up to $500 million, are we involved in the appropriations process there?

Ms. KUZNICK. We may be involved in the appropriations process. If there are not enough appropriated funds within the Department, we would have to get funds somewhere, and we would either get them for a supplemental appropriation or out of the judgment fund in conjunction with the Justice Department and the Department of Treasury. Every year there is an appropriation of money put into the judgment fund that would equal what the United States owes pursuant to court decisions.

Whichever method is used the judgment fund or a DOE supplemental, it would have to be appropriated at some point from the Congress.

Senator **Simpson**. So we have this phrase entitled "obligation," and we have a legal impact and an obligation, and as to whether Congress must appropriate funds under that obligation.

Ms. **Kuznick**. We have an authorization, but we don't have an appropriation. We are authorized to obligate the U.S. Government in advance of appropriation, and that is a very unusual provision in any statute.

Senator **Simpson**. It certainly is. How much money is in the judgment fund?

Ms **Kuznick**. It is appropriated every year according to what kind of claims are pending, and I am not sure what there is in this particular fiscal year.

Senator **Simpson**. Would you submit that for the record please?

Ms. **Kuznick**. Yes.

Senator **Simpson**. Thank you.

[The information requested follows:]

Public Law No. 95-26 authorized a permanent indefinite appropriation for payment of certain judgments from the general funds of Treasury. This appropriation is known as the "judgment fund" and appropriations are made into the "judgment fund" for payment of claims not chargeable to appropriations of individual agencies and for payment of private and public relief acts.

Senator **Simpson**. Mr. Rusche, turning to the application of Price-Anderson to the High-Level Waste Program for just a moment, you note in your testimony that the funds to pay all claims arising out of this program should come out of the nuclear waste fund. Would you expand on the rationale of that statement?

Mr. **Rusche**. Mr. Chairman, I tend to view the waste program as very much like a business in which the cost of doing business ought to be paid for by the business. In that sense, at least assuming a finite cap of some sort remains effective, we would think that the nuclear waste fund, which is separate from the general fund, ought to be the source of the payment of any such claims.

We face something of the same consideration with respect to how you pay that as you were just discussing with Ms. Kuznick and Mr. Vaughan. You will recall that funds that are in the nuclear waste fund have occurred as a result of a congressional determination that utilities pay a 1-mil-per-kilowatt-hour fee into the fund, and each year we seek appropriation from that fund for the conduct of nuclear waste activities. Therefore, if the fund contained a balance—for example, today it does contain a balance as a result of recent one-time payments by the utilities for past waste generated, that balance is about $1.4 billion—presumably the authority would be granted for us to pay from those existing funds. If there was nothing in the waste fund, we would be exactly in the same situation, Congress would have to require the generators to pay into the fund.

Senator **Simpson**. Let me ask one final question, and then I am going to submit the remaining questions in writing so we can have at least 10 minutes each for questions. Perhaps this one is for both of you.

Would you explain to us the liability of the Federal Government, as opposed to one of your contractors, for actions taken in carrying out the High-Level Waste Program. Are you liable for damages without limit under the Federal Tort Claims Act?

Mr. RUSCHE. I will let Ms. Kuznick speak to the without-limit portion.

Ms. KUZNICK. The Federal Tort Claims Act is a limited waiver of sovereign immunity for the Government, and that includes the Department of Energy. There is no specific dollar limitation on liability in the Tort Claims Act. However, there are other exceptions to the Tort Claims Act as to defenses that the Government can utilize. For example, there is no strict liability against the Government generally. So there is a balancing in the Tort Claims Act also.

Senator SIMPSON. Let me ask you, then, should the utilities pay for an accident through this fund where the DOE causes the accident?

Mr. RUSCHE. We believe so as a result of paying into the waste fund itself for the cost of conducting the program in the first place.

Senator SIMPSON. That is interesting.

Mr. Chairman.

Senator STAFFORD. Thank you, Mr. Chairman.

Ms. Kuznick, the chairman asked you, I think, to supply some figures as to what funds are in the judgment fund. I would be interested in knowing how much has been paid out of the judgment fund over the last several years. Could you supply that information also?

Ms. KUZNICK. Yes. I will have to get that information from another department, but I will supply that information.

Senator STAFFORD. I think that this will be interesting information for us to have.

[The information requested follows:]

The total outlay from the "judgment fund" in fiscal year 1983 was $562,714,000. In fiscal year 1984, the outlay was $235,517,000. The estimates for the outlay for fiscal years 1985 and 1986 are $390,420,000 and $301,170,000 respectively.

Senator STAFFORD. Mr. Rusche, you stated that there should be a limit on liability incurred by the High-Level Waste Program contractors. Should there be full compensation for damages above the liability limit and, if so, who should pay for those damages?

Mr. RUSCHE. Mr. Stafford, it is our view generally that one of the intents of the Price-Anderson Act is to provide for rapid and just settlement of a certain amount of predetermined available indemnification. In that sense, we think that it should be paid from the fund under the conditions we were just talking about.

If that limit is exceeded, I think that the nuclear waste fund, just like the general fund of the United States, is not unlimited, and the place that we would turn to, and think that the American people would turn to to seek such redress, is to the Congress itself.

I think the Congress would have the option, in our case, of deciding, if that excess was small or by whatever characterization it chose, whether it should be paid by the generators, that is, the nuclear utilities that are generating the waste, or whether it should be paid from the general fund.

However, I don't think that one could make a before-the-fact determination on that point, and it is not unlike what would be the case for any other contractor of the Department.

Senator **Stafford**. I understand that at least one State has refused to sign a consultation and cooperation agreement with DOE because of DOE's refusal to provide unlimited indemnification for a nuclear incident. I also understand that DOE's response has been that DOE does not have the authority to provide for unlimited indemnification under the existing Price-Anderson system.

If Price-Anderson were amended in the manner DOE recommends, would the State's objections be satisfied?

More generally, do you believe that the State will accept the Repository Program with anything less than unlimited liability?

Mr. **Rusche**. I don't think I should attempt to speak for the States as to what they might accept. I would point out that not only has one State, but all States—let me put it another way. We have not reached a consultation and cooperation agreement with any State so far. In fact, we have not reached the stage in the program in which we are obligated, under the law, to attempt to reach such an agreement.

The discussions to which you refer was with the State of Washington in which we were proceeding in a discretionary manner at their request. That is an issue on which the State concluded that it was not prepared to proceed.

Senator **Stafford**. I gather you believe that after an accident, the legislative process is the appropriate and reliable method by which to determine liability and compensation for damages beyond the limits.

Mr. **Rusche**. Beyond the limits, that is correct, sir.

Senator **Stafford**. Have you had a chance to examine the various bills in front of the committee?

Mr. **Rusche**. Yes; I have been made aware of them.

Senator **Stafford**. Would you comment briefly, if you are in a position to do so, on the pros and cons of the bills which are pending in front of the committee?

Mr. **Rusche**. Mr. Vaughan made such a statement earlier, and it is in the record. We could repeat that statement, if you would like. I attempted to suggest what I thought was an appropriate content for the Waste Program as well as for all of our programs.

I think perhaps the simplest thing, in view of the time, is to allow us to present that in writing again to you, if I may.

Senator **Stafford**. All right.

[A reply to Senator Stafford's request follows:]

On review, it has been determined that Mr. Vaughan's prepared statement covers this request, and that we have no additional information.

Senator **Stafford**. Should the Department of Energy have a right of recovery against contractors that were negligent or grossly negligent for damages that were paid by the nuclear waste fund? Would anybody care to comment on that?

Mr. **Vaughan**. I would be glad to comment on the question generically, because I think that it really is not limited to the question of the waste fund but goes across the board.

As we reviewed the history of Price-Anderson there were two basic objectives. One was to remove the deterrent to private sector participation because of the threat of potentially enormous accidents. The second was to provive an adequate, but not excessive, fund available to quickly satisfy immediate claims. The legislative history shows that Congress didn't intend Price-Anderson to address accountability, and a Senate report on the bill contains language that basically indicates that an accident is an accident, whether willful or otherwise.

We don't think, therefore, that the public liability definition excludes those arising out of willful misconduct or any other type of conduct. Therefore, not only in nuclear matters, but in other matters, the Government essentially is self-insured in covering public liability and in indemnifying its contractors.

We have, within the Department, a number of incentives, as well as a large number of rules and regulations, irrespective of the Price-Anderson Act that make it important and critical for our contractors to operate their facilities in a safe and reliable manner. Some of these incentives are financial through their award fee contracts, for example.

If there were an amendment to the act that permitted the Department to bring suit against the parties who did some willful damage as a part of their activities, that could be a method that would permit us to recover the cost of this indemnification.

Senator **Stafford**. Thank you very much, Mr. Chairman. I have limited myself to about 6 minutes because I know there are others here and other panels to come. I have additional questions that I will submit in writing, if I may.

Senator **Simpson**. Thank you, Bob.

Senator Hart, please.

Senator **Hart**. Mr. Vaughan, do you consider nuclear energy to be less safe than, as safe as, or more safe than conventional sources of energy?

Mr. **Vaughan**. It is at least as safe, if not safer than, some of
others. The public does not necessarily share that common p
tion, although I think the facts support it.

Senator **Hart**. So the purpose of Price-Anderson is to m
public feel safer.

Mr. **Vaughan**. That is one of the purposes. The f
matter is that the potential of an extraordinary nuclear
does exist, albeit small. Hopefully, we will never ha
was not one in the sense of the definition, but the
mains. The Price-Anderson Act does provide a bal
redress in that very unlikely but possible event, a
the public assurance for an event for which they
the consequences. It doesn't, in reality, cost the
of money to indemnify its contractors; history s
in the commercial arena, the nuclear utilities
priate arrangement to provide their coverage

Senator **Hart**. Would you favor a change
would require the Congress to raise taxes
demnification in the case of a major acci
public at large or on the industry.

Mr. **Vaughan**. Mr. Hart, I do not believe es
that it would really be a necessary step to take

Senator HART. We have no history. The question is, If reactor A melts down, and the XYZ Co. pays everything it has, and the damages run to $5 billion in southern Pennsylvania or somewhere, the Government has to come up with the difference, let's say, $4.5 billion, would you favor a change or an amendment to a clause that said that the Congress is forced to go to the public to raise taxes to pay for that $4 billion?

Mr. VAUGHAN. I would like not to take a posture on that question for the administration. That principally is a question that is in the commercial arena, regulated by the NRC in the case that you posed.

Senator HART. I think that as the senior administration witness here today on policy issues, this is a policy question.

Mr. VAUGHAN. That is correct. I believe there are ways that we can accommodate the situation without a provision to raise taxes.

Senator HART. How?

Mr. VAUGHAN. I think that history shows that the events that you pose are sufficiently unlikely that you don't need to make a predetermination of how the money would be raised.

In fact, the structure of Price-Anderson permits Congress to deal with the providing of funds in the event that they exceed the liability cap. Since Congress has to deal with it at that point, I think that they could consider the facts in hand rather than the hypothesis, and if it were necessary to choose a fundraising mechanism at that point, it could be part of the consideration.

Senator HART. Why not do it ahead of time? Why not build all the costs into the cost of doing business in this area?

I just wonder why nuclear power is being treated differently if it is safer, and I wonder why the administration, which promotes free enterprise so much, wants to continue to subsidize this particular source of energy which it favors, and one which it believes is at least as safe, if not safer, than other supplies of energy. It is totally antithetical to the economic philosophy of the administration.

Mr. VAUGHAN. Senator Hart, we do not consider it to be a subsidy. With respect to the particular question that you posed, it is, in my view, a sufficiently remote possibility that we do not need to predetermine how the Congress would raise funds. There are numerous other circumstances where the Congress could be called upon to make some special extraordinary provision for which we have also not predetermined the mechanism of raising funds.

Senator HART. What are those?

Mr. VAUGHAN. Conceivably there could be a major accident at a chemical plant, for example.

Senator HART. Is there a Price-Anderson for chemical plants?

Mr. VAUGHAN. There is not.

Senator HART. Is there for any other industry in our society?

Mr. VAUGHAN. There are some unique provisions in Price-Anderson. I think that there are other examples where there is the capability for the Government to step in in case of some unusual event or accident. There are some aspects, for example, of maritime law that make similar provisions.

Senator HART. Why not wait for this accident, which you indicate probably will never happen, to occur and then determine what the Government policy is? Why have Price-Anderson at all? Why not treat the nuclear industry the same way we treat the chemical industry, or a variety of other industries?

Mr. VAUGHAN. The fact of the matter is, the system has existed for 28 years. It provides a useful precedent. I believe that the history of 28 years shows that the balances achieved indicates that there is no reason to discontinue it. If we were having a debate today as to whether to create something brandnew, we conceivably might approach it in a different manner.

Senator HART. Mr. Vaughan, I think there is a powerful reason to discontinue it, and that is to force degrees of performance in the industry, both in the construction and the operation of nuclear reactors, that we haven't seen in recent years.

If you look at the recent history of the industry, it is replete with poor performance in construction of plants, cost overruns, scandals of misuse of materials. The larger the reactors have gotten, the sloppier the construction and operations have gotten.

The reason you have a system of negligence and liability in a society such as ours is to force the highest degree of performance on the part of those who build the plants and those who run the plants. If there is the Government standing back there, overshadowing the whole thing—you may say that it is not a subsidy, but I don't know any definition of subsidy that wouldn't include Price-Anderson, and you are inviting poor performance.

Mr. VAUGHAN. The particular examples that you cited were principally in the front-end construction of the plants. I think you could cite, and I could certainly cite, an equal number of examples much less publicized of successful and adequate construction.

I think that you also are well aware that there has been an improvement in the operation of nuclear powerplants, and the training of operators and other related factors over the last 8 to 10 years. There, obviously, continue to be some aberrations in those examples which gain excessive publicity compared to other incidents.

The fact of the matter is that utilities in the commercial arena, as NRC licensees, are those that contribute to the funds that are made available for paying for the damages for public liability, which is what we are talking about in Price-Anderson, so they have every incentive to safely operate their plants. Even if they didn't, they have a tremendous economic incentive just in terms of protecting their property.

Senator HART. Mr. Chairman, I am amazed, in this instance, that the free enterprise administration would want to continue a subsidy by the Federal Government, and wouldn't face up to the possibility that the cost of that subsidy be borne by an increase in taxes.

Thank you very much.

Senator SIMPSON. Thank you, Senator.

Let me introduce to the panel Senator Mitchell, a fine contributing member of the subcommittee.

You may proceed, if you have a statement or questions, as you wish.

Senator MITCHELL. Thank you very much, Mr. Chairman, I do have questions.

First, I apologize to the witnesses, particularly Mr. Vaughan, I didn't get a chance to hear his testimony, but I have had a chance to read it.

First, in response to a question by Senator Stafford regarding the possibility of a provision that would permit the Department to recover expenses if a contractor was found to have caused an accident due to willful misconduct, you said that that could enable DOE to recover some portion of the cost of indemnification, which, of course, is clear.

I believe the thrust of his question and, if not, my question is, Does the Department support such a provision?

Mr. VAUGHAN. We don't feel that it is necessary to have such a provision, but we don't object to it.

Senator MITCHELL. What about with respect to an accident caused by gross negligence?

Mr. VAUGHAN. I think that is in the same context that I was answering the question.

Senator MITCHELL. The same category.

Mr. VAUGHAN. Yes.

Senator MITCHELL. Is it your position that there are other compensating provisions that are intended to induce contractor safe activities so that you don't need to discourage people from engaging in gross negligence and willfulness conduct?

Mr. VAUGHAN. That is correct. That was the essence of my previous response.

Senator MITCHELL. Ms. Kuznick, are you able to cite for me now and, if not, would you upon reflection provide me in writing any other area of American law in which a person is shielded from the adverse effects of his own willful misconduct?

Ms. KUZNICK. I will answer that for the record, yes.

Senator MITCHELL. You can cite one now, can you?

Ms. KUZNICK. Not offhand.

Senator MITCHELL. You are not aware of any right offhand, are you?

Ms. KUZNICK. Shielded from willful misconduct?

Senator MITCHELL. From the adverse effects of his own willful misconduct.

Ms. KUZNICK. No; I can't cite any right now, but I will answer that for the record.

Senator MITCHELL. Would you provide to me in writing either a statement that upon examination you are unable to find any other area, or if you do find one, provide it for me.

Ms. KUZNICK. Yes; I will.

[The information requested follows:]

The following statutes permit Government agencies to indemnify their contractors under specified circumstances:

1. 50 U.S.C. §1431, known as Public Law 85-804, as implemented by several Executive Orders and the Federal Acquisition Regulations, permits several agencies to indemnify contractors if such indemnification would facilitate the national defense.

2. 10 U.S.C. §2354 permits military departments to indemnify contractors engaged in research and development.

3. 42 U.S.C. §241 permits the Department of Health and Human Services to utilize the provisions of 10 U.S.C. §2354 for research related to the prevention of physical and mental diseases and impairments of man, including water purification, sewage treatment, and pollution of lakes and streams.

4. 38 U.S.C. §4101 permits the Department of Medicine and Surgery of the Veterans Administration, to indemnify its contractors engaged in activities of an unusually hazardous nature.

5. 42 U.S.C. §2210, the Price-Anderson Act, permits the Secretary of Energy to indemnify its contractors engaged in activities that involve the risk of public liability for a substantial nuclear incident.

The above statutes, which specifically permit Government agencies to indemnify their contractors, do not contain an exception to the indemnity based on the actions of the contractor. The most widely-used indemnification statute, 50 U.S.C. §1431 (P.L. 85-804), which permits indemnification of contractors in order to facilitate the national defense, does not contain such an exception. However, Executive Order No. 10789 and regulations implementing P.L. 85-804 prohibit indemnification of (1) Government claims against the contractor, other than those arising through subrogation, and (2) loss or damage affecting the contractor's property, when the loss or damage is caused by "willful misconduct or lack of good faith on the part of any of the Contractor's principal officials." 48 CFR §52.250-1. Therefore, a contractor indemnified under P.L. 85-804 is indemnified by the Government for third-party liability claims that result from the contractor's willful misconduct. However, such contractor would not be indemnified by the Government for damage to Government property or damage to the contractor's property.

The DOE Price-Anderson indemnity clause included in DOE operating contracts provides that "[t]he obligations of DOE under this clause shall not be affected by any failure on the part of the contractor to fulfill its obligation under this contract." This is consistent with the legislative history of the Act. The 1957 Senate Report explains:

> "The suggestion which was contained in the originial draft legislation of the Commission that willful damages be excluded was not accepted since the damage to the public is the same, whether caused by any means - willful or nonwillful." S. Rep. No. 296, 85th Cong., 1st Sess., reprinted in 1957 U.S. Code Cong. & Ad. News 1819.

Senator MITCHELL. Mr. Vaughan, in your statement you refer to S. 1225, and specifically to what you call a number of important features which will affect DOE operations in four areas, the first of which is the increase in the financial protection available to an amount equal to the financial protection available to NRC licensees. Do you recall that portion of your testimony?

Mr. VAUGHAN. Yes.

Senator MITCHELL. Then you go on to describe that limit as one which could approach $2.4 billion depending upon the number of licensed reactors and the retrospective premium assessed to each reactor.

With respect to that, is it your opinion that the amount of liability set forth there, up to $2.4 billion, represents a considered judgment as to what is an adequate, responsible, and prudent amount that should be available in the event of an extraordinary nuclear occurrence?

Mr. VAUGHAN. I believe it is; yes.

Senator MITCHELL. I would like you to explain the Department's response to the inquiry that Senator Metzenbaum made of you on June 25. If you will recall, in September 1981, the Comptroller General of the United States reported to Congress urging that the financial protection of the public from accidents at DOE nuclear operations be increased.

On June 25, Senator Metzenbaum asked you to do what DOE had suggested be done, and that is to assess the potential damages from nuclear incidents at its facilities. On August 21, the Department responded to Senator Metzenbaum's inquiry, and I have a copy of that response here. It is a two-page insertion in the record from you that I think is fair to say essentially says that it cannot be done. I will just read the first two paragraphs of it.

It says:

> The Department has considered the recommendation made by the GAO in its 1981 report that DOE assess the potential damages resulting from nuclear incidents at its facilities. Establishing the potential damages and amount of money that would be necessary to satisfy the claims after a nuclear incident would require developing a complex model of each facility, including not only reactors, but a large number of other facilities involved in nuclear related activities.

I won't read the whole thing.

> Estimating damages through modeling is a methodology that would require making a large number of uncertain assumptions about the type of incidents which occur in the complex chain it sets off. It would require making assumptions about hundreds of variables such as atmospheric conditions, population density, operator response, emergency plans in place, population response. Hundreds of scenarios would have to be developed and analyzed. The assumptions used to arrive at an estimate would be subject to conjecture.
>
> The Department believes that such an exercise would only lead to a very wide range of values for damages resulting from nuclear incidents and would be of very little value in helping to establish a liability limit.

Then you go on to quote former Deputy Secretary Davis, in an earlier statement, where he said:

> We simply don't have a methodology or a way of arriving at figures, nor the criteria by which one ought to pick a figure.

I am very puzzled and concerned as to why, if in August 1985 your response is that you really can't make any estimate of what the adverse effects of incidents at DOE-operated nuclear facilities would be, you are able then to speak with some confidence that the $2.4 billion regarding potentially extraordinary nuclear occurrences resulting in offsite damages is a prudent and responsible figure.

Mr. VAUGHAN. I think, Senator Mitchell, it is important that we understand the difference in the two estimates that we are talking about in these questions, because I think we have a question, to some degree, of apples and oranges.

In the case of the GAO report and the correspondence to which you referred, the question really relates to the extremely remote possibility of some nuclear incident which we can't imagine, and what could be absolutely the worst case damages.

The particular liability limit that is currently in Price-Anderson, and which could be increased in the case of Senators Simpson's and McClure's bill to approximately $2.4 billion, is determined based on a formula corresponding to the number of commercial reactors.

That amount of money, which is available for payment of immediate claims, with a waiver of defenses is simply the level at which additional congressional review would be triggered in the event of some truly catastrophic event.

My first answer was in response to your question of a balanced Price-Anderson type bill. Would it be appropriate, given the inflation that has occurred since the original bill, to raise that first step limit at which you must balance the near term, immediate payment of claims against the provision that people have to waive their normal defenses?

The second item, referred to in my August 25 letter, is the hypothetical calculation of damages caused by a major catastrophe. It is just impractical to make the assumptions to evaluate such damages.

Senator MITCHELL. Well, really what you are saying is that you didn't mean your first answer. I did ask you the specific question, whether you felt that $2.4 billion was an adequate, responsible, and prudent amount to have available for an extraordinary nuclear occurrence, and you said, yes.

Mr. VAUGHAN. In that case, I apologize for misleading you in my answer. I answered the question in the context in which the limit appears in the bill, and solely in that context. It appears in the bill in the same context as the current limit in Price-Anderson, which is in the range of half a billion dollars. It was in that context that I answered your question, and it is simply the limit which triggers the congressional review after you have exhausted the initial provision.

Senator MITCHELL. The only point that I wanted to make is that the amount clearly does not represent any independent considered judgment that this is an amount that is a prudent, responsible level to have available to compensate victims should such an incident occur. It is an arbitrary figure.

You are familiar with the legislative history of the original level and know how that was set. It did not represent the results of any comprehensive or expert study or analysis of the problem.

Mr. VAUGHAN. I think that is correct, but that does not preclude a judgment that it is a reasonable figure based on history and experience. But it is not a precisely calculated figure.

Senator MITCHELL. Wait a minute, a reasonable figure based on history and experience. First off, the provision has never been invoked; and, second, as your statement as late as August says no such careful analysis, or study, or attempt to estimate it has been made. Has there?

Mr. VAUGHAN. That is correct, but we keep mixing two subjects up. The limit as contained in the existing Price-Anderson bill, which is approximately half a billion dollars, which would be raised by a formula based on the number of operating commercial reactors, and the increased limit in the Simpson-McClure bill is that level at which you attempt to strike a balance by asking those who are determined to be liable to waive their defenses and pay the immediate claims to assure the public. In doing that, they give up, as I pointed out in my statement, certain defenses that are normally available under tort law.

Senator MITCHELL. What defenses does anyone who deals with extraordinary hazardous substances have under ordinary tort law? Does not the law of strict liability apply in every State in this country to those who handle or utilize hazardous substances?

Ms. KUZNICK. It is not clear that every State would apply strict liability.

Senator MITCHELL. What State doesn't apply strict liability on the use of extraordinary hazardous substances?

Ms. KUZNICK. With regard to nuclear, I was going to say it is not clear with regard to radiation injuries what standard would be applied. There just have not been that many cases to determine what standard a State court would use.

Senator MITCHELL. I have gone over my time, and that is a whole new area that perhaps we can get into later. I apologize, Mr. Chairman.

Senator SIMPSON. Thank you, George. These are interesting questions and they are helpful to us.

I guess the thing that I would summarize is that we have been at it now for 28 years, and there have been about $41 million paid out. I guess we could take everybody and stick them under the Federal Tort Claims Act, which has unlimited liability and everything that goes with it, discretionary functions, exhausting of remedies, and so on. It is ironical that Price-Anderson is a much easier system, a much more workable system than that. Those are things that we will pursue. I don't think that we can ever set a figure that will be right, there won't be any way to do that. But when that great cataclysm comes, which everybody has been waiting for for all the years of commercial nuclear power, probably the Federal Government will jump in and get wet all over, and do something with it. My hunch is that since we are the repository of last worth in the United States, at least for a while longer, that is what will happen anyway. It is a tough one like all of them.

I thank you very much for your testimony and your answers.

Mr. M.G. Johnson now, special counsel of Bechtel Power Corp. of San Francisco, CA.

STATEMENT OF M.G. JOHNSON, SPECIAL COUNSEL, BECHTEL POWER CORP.

Mr. JOHNSON. Mr. Chairman, I appreciate the opportunity to be here today.

I am appearing as chairman of the coordinating committee of Price-Anderson contractors policy issues study for the American Nuclear Energy Council. With me today is Omer Brown, counsel to that group.

I am going to be talking strictly about the Government contractor indemnity today, including the high-level nuclear waste aspects of it, and not on the nuclear power reactor, or the 170c aspects of Price-Anderson.

I think that at the outset, to dispose of a lot of the emotionalism that has characterized the Price-Anderson debate in recent months, perhaps years, we should keep in mind that the Atomic Energy Act of 1954 has clearly and firmly established that the development and utilization of nuclear energy is in the national interest. That is not the issue we are debating when we are discussing Price-Anderson. I am concerned that, particularly in connection with tomorrow's hearings, there may be some whose position on Price-Anderson is dictated by their opposition to that fundamental, established point which the Atomic Energy Act of 1954 has established.

I don't think we should permit opponents of nuclear energy to attack it indirectly by savaging Price-Anderson to such an extent that the nuclear option is destroyed. I think if that is the debate, it should focus on those issues and not on the Price-Anderson issues.

Given that premise that the development and utilization of nuclear energy is in the national interest, I think there are essentially only two basic objectives which Price-Anderson should be tailored to achieve.

First, is victim compensation prompt and adequate in the event of a nuclear incident. I want to talk about that a little later. Second, elimination of the disincentive to private industry participation in the nuclear program, without which participation the program could not possibly be successful.

I think each and every proposal to modify Price-Anderson should be tested in the light of those two objectives, and that they should be rejected unless affirmatively supporting at least one of those objectives, and not seriously impairing the other.

A number of Price-Anderson modification proposals have been submitted to the Congress this past year. Rather than discussing each bill separately, I would prefer to discuss some of the general concepts which appear in the several bills, the principal elements of those proposals, and testing each against the objectives that I have previously described.

First and foremost is the question of the limitation on liability for nuclear incidents. Some proposals would totally remove the limitation, others would simply increase the limitation to a figure well beyond the capability of industry, including the insurance industry, to pay. Removing the ceiling on liability does nothing for the victim compensation as such simply because liability and ultimate recovery are not the same thing. It is only when the U.S. Government is the party liable that unlimited liability has any meaning.

Otherwise, in any kind of normal situation, if you are injured in an automobile accident, there are no legal restrictions on your right of recovery, but there may well be financial restrictions on them if the defendant, the party causing the accident, has no insurance and no assets.

So let's not get too carried away with the magic of unlimited liability.

In the Government contract area, presumably removing the ceiling on liability would require an unlimited indemnity of Government contractors under Price-Anderson. I think that it would be irresponsible for the Government to issue a blank check of that sort, and I think that it is totally unnecessary.

You raised the question of how much money is necessary to respond to a serious nuclear incident. The simple answer is, no one can tell, no one can say with certainty what that amount is in the long run. However, it can be predicted with a reasonable range of certainty that the immediate damage and injury, that which is recognized and identified within a short time after the incident, is not going to be some number such as some of the numbers that have been thrown around.

The prime consequence of a nuclear incident is going to be cancer which has a long incubation period. That is the reason we think the act should provide a reasonable amount of money immediately, and then provide for the Congress to take action when the full consequences can be known, when the facts of the incident are known, when the Congress can review the claim settlement history, impose conditions on further compensation, if, for example, punitive damages have been excessive, if excessive, noneconomic loss, pain and suffering, has been compensated, and if the attorney's fees have been excessive.

Have I exhausted my time?

Senator SIMPSON. Yes, you have, and I am sorry about that. I want to be present for the whole testimony, and I will not be able to do that unless we proceed. I don't like to leave it in the hands of others, and I could not find anybody anyway.

Let me ask you a couple of questions, and then Senator Hart will have questions.

You note in your testimony that it would be inappropriate for Congress to write this blank check in advance of an incident. There may be a little more that you could tell us about that.

Then I would ask, is it your understanding that by removing the $500 million cap on liability currently contained in the Price-Anderson Act, Congress would essentially be obligated to pay whatever amount a judge or jury might award with no opportunity for congressional scrutiny of those awards through our appropriations process?

Mr. JOHNSON. Assuming, yes, that the indemnity was similarly unlimited.

Senator SIMPSON. Why does it make a difference to the contractors employed by DOE where the Congress sets this limit on liability under this act so long as the contractors have a system that serves this objective of indemnification?

Mr. JOHNSON. It actually does not, other than the contractor's feeling as a taxpayer that he doesn't want irresponsible action, and if great sums of money are going to be paid out, it perhaps should be under conditions reviewed by the Congress.

Senator SIMPSON. Some argue that the DOE contractors should not be indemnified for actions that are negligent, reckless, or grossly negligent. Why should the Federal Government be on the hook for paying liability claims of a grossly negligent contractor?

Mr. JOHNSON. In the first place, it is a Government activity that we are talking about by definition, so that the Government is probably on the hook anyway, subject to limitations of the Federal Tort Claims Act. Second, for the contractor, this indemnity is nothing more or less than the insurance policy he can't get to cover the nuclear risk, which covers his other nonnuclear risks. In that event, the insurer can't turn around and sue the insured when he pays off the claim.

Senator SIMPSON. Does that excuse gross negligence on the part of the contractor?

Mr. JOHNSON. In my analogy, yes. Under the insurance deal, there is no defense to the insurer except cancellation of the policy. I think that when you are talking about intentional misconduct of that level, first, there is probably adequate protection in the criminal law today in view of the consequences of an accident if the contractor is intentionally committing a wrong; second, I think that the Department of Energy has it well within its power to regulate, either by contract or by regulations, and impose some kind of penalty on the contractors who do not comply with the safety requirements of the Department.

Senator SIMPSON. If we just let Price-Anderson expire on August 1, 1987, are you aware of any other authority that would be available to DOE to indemnify its contractors in any manner similar to the approach that DOE takes under Price-Anderson?

Mr. JOHNSON. Yes; there are other means available, but not as adequate by any means, for example, the secretarial indemnity, the Public Law 85-804 indemnity. The problem is this: That indemnity does not provide protection for the suppliers, the hundreds or thousands of suppliers who are providing materials for the Federal Government nuclear facilities. It does not provide protection for the subcontractors. It does not have the whole scheme in place as does Price-Anderson.

Senator SIMPSON. Let me just ask a final question on this negligent and reckless, gross negligence, and so on.

Do you feel that requiring contractors to be responsible for such actions is going to drive them out of business, or will it just drive those contractors out of business who are negligent, reckless, careless, and grossly negligent?

Mr. JOHNSON. I recognize the moral indignation inherent in the characterization of anyone as being grossly negligent. But remember that a business, a contractor is responsible legally for the activities of its employees over whom he may have no significant control as a practical matter. In the construction industry, this is particularly true, you take what they send from the union hall.

As a practical matter, that contractor has no means of effectively controlling all of his employees. I don't see how a contractor or a supplier could take that responsibility. No place else in the world that I know of is intentional misconduct enough to subject the contractor or supplier to the nuclear liability.

Senator SIMPSON. I must say, after practicing law and dabbling in the mystic arts for about 18 years, legally an employer is responsible for his employees under many, many circumstances. So I don't really hear that song much.

You are next, Senator Hart.

Senator HART. Mr. Johnson, I am really confused by what I have heard, and I am sure that it is my fault. What is unique about nuclear power?

Mr. JOHNSON. We are not talking about nuclear power. We are talking about nuclear energy.

Senator HART. What is unique about nuclear power on the Government's side of the fence?

Mr. JOHNSON. The potential radiation escaping from its intended place of confinement is pretty serious, pretty grotesque.

Senator HART. So are chemical escapes.

Mr. JOHNSON. They are. The thing is that the insurance industry does provide some insurance protection for the chemical industry. There, they have a much larger base of companies from which to insure, and far better statistical information.

Second, in the Government contract nuclear area, these are U.S. Government activities. The contractor or supplier coming into that facility doesn't even have access to the information he needs to, one, evaluate the potential risk; or two, himself, take the necessary steps to avoid incidents. He has only what the Government gives to him. That is a different animal.

Senator HART. Could we go back to the nuclear energy industry for a moment, would that be possible. What is it about that industry, leaving the question aside about the contractors with DOE, and so on, just those who build and operate powerplants as such? What is unique about their activities?

Mr. JOHNSON. Again, I did not really come prepared to talk about the nuclear power industry. I will say that every country in the free world, the western world, which has nuclear power has a system in place which—in fact, outside of the United States—channels all liability to the operator, and totally relieves engineers, contractors, suppliers, et cetera, of any liability whatsoever.

Senator HART. That is not what Price-Anderson does, as I understand it, to channel any liability for subcontractors and suppliers to the principal contractor. It channels extraordinary liability to the Federal Government, does it not?

Mr. JOHNSON. It channels all liability to one of now two layers of protection, one, the commercial insurance, and second, the retrospective assessment. All liability is channeled to that, and there is no liability under the law that seeps out from under that umbrella in the private nuclear power area.

It is a difference between channeling of legal liability and economic liability. The United States is unique in that we channel economic liability rather than legal liability.

Senator HART. From whom to whom?

Mr. JOHNSON. Overseas, and outside of the United States, including Canada.

Senator HART. I mean in the United States.

Mr. JOHNSON. The economic liability is channeled from whoever may have been responsible for the accident to, one, the commercial insurance, and two, the retrospective assessment program.

Senator HART. Namely, the Federal Government.

Mr. JOHNSON. No. Under the current law, the Federal Government plays virtually no role in it unless one of the utilities defaults in its obligation to pay its retrospective assessment. The Federal Government has no practical financial liability directly under Price-Anderson as it stands today, given the number of nuclear reactors that have been licensed.

Senator HART. What is to prevent an operator, operating a utility, from declaring bankruptcy in the case of a major occurrence or incident, rather than accident?

Mr. JOHNSON. Under the current arrangement, that would make no difference simply because, first, again, it would not affect the commercial insurance, the $160 million of underlying insurance; second, it might affect the obligation of one of the utilities to pay its $5 million per licensed reactor in retrospective assessment, but the arrangement considers that as a possibility and provides for, I think it is either $30 or $40 million.

Senator HART. We are talking about an accident. I call them accidents, and you call them occurrences or incidents.

Mr. JOHNSON. Incidents, yes.

Senator HART. Where the damage is $5 billion. So forget about the $30 million here and the $160 million there, 5 billion dollars' worth of damage is done, the Federal Government is the insurer of last resort.

Mr. JOHNSON. No; not except for the fact that the law provides, after an incident which creates damage and loss in excess of the then limit of liability, that the Congress is committed to reviewing the situation in the light of the facts, in the light of day, after the accident has occurred, and determining what appropriate action should be taken.

Senator HART. Thank you, Mr. Chairman.

Senator SIMPSON. Thank you, Gary.

Thank you very much, Mr. Johnson. I appreciate having your testimony.

Mr. JOHNSON. I forgot to request that our statement and the answers to your questions be entered into the record.

Senator SIMPSON. Without objection, so ordered. I will have a couple of additional questions, and perhaps some of the other committee members or subcommittee members will, too. Thank you.

The next panel is composed of two attorneys general. On behalf of the National Association of Attorneys General, we have the Honorable Jim Jones, attorney general of the State of Idaho; and the Honorable Edwin Lloyd Pittman, attorney general of the State of Mississippi. It is a pleasure to have you here, and indeed a great honor to have you here.

We have a lot of ex-attorneys general wandering around in the U.S. Senate, you are aware of that, and they are very able people, indeed, both parties. It is nice to have you here. If you will proceed, then, General Jones.

STATEMENT OF HON. JIM JONES, ATTORNEY GENERAL, STATE OF IDAHO

Mr. JONES. Chairman Simpson, it is a pleasure to be here. I am Jim Jones, the attorney general of Idaho. I appear here today in my capacity as chairman of the energy committee for the National Association of Attorneys General, and on behalf of the association, to express our views on this legislation.

With me is Attorney General Edwin Pittman. General Pittman is chairman of the association's subcommittee on high-level nuclear waste, and he will also be representing the views of the association.

I should point out that our testimony here is not going to cover the whole gamut of the Price-Anderson Act. It will be limited to the question of responsibility for the High-Level Nuclear Waste Program. We don't particularly intend to comment on the bills and proposals that are before the committee other than to indicate that those bills, at least the ones that are presently before the committee, do not entirely address the point of view that we would advocate to the committee.

Attached to my testimony, and I think also to General Pittman's testimony, is a resolution that was proposed originally by his subcommittee, adopted by the energy committee, and then adopted without objection at the plenary session of the National Association of Attorneys General at the Colorado summer meeting in July of this year.

It is simple and straightforward. It says that the Federal Government ought to assume responsibility and full liability, without limitation, for injuries or property damage occurring with respect to the transportation and storage of high-level nuclear waste.

The resolution was adopted as a consensus of the organization. I think that it is important to point out that the association consists of Republicans and Democrats, liberals and conservatives, supporters of nuclear power like myself, and opponents of nuclear power, but we were able to reach a consensus on this one point. I think that this is an important point because it shows that despite the diversity of our group we were able to reach a consensus on the liability question.

Under the Nuclear Waste Policy Act, Congress mandated that the Federal Government take control of and responsibility for all aspects of transportation and storage of high-level nuclear waste. Our feeling is that with that ownership of the high-level waste, the Federal Government also ought to have full responsibility for compensating for property damage or personal injury which may occur with respect to conduct of that program.

We think that there are some good policy considerations behind such a proposal. No. 1 is, and I know that most lawyers would certainly agree with this, when you have title to a program and you also have accountability and liability for accidents which occur with respect to that program, then there is certainly a greater safety consciousness. In other words, the operators of a program, recognizing that they could lose their jobs, if they are careless or that their employer—in this case the Federal Government—could be held accountable for substantial damages, are more attentive to safety considerations and more willing to operate a program in a safe and acceptable manner.

We think, from the standpoint of public confidence in the Nuclear Energy Program, that acceptance of full responsibility and full liability by the Federal Government is also desirable. As Mr. Rusche testified, none of the States that they have tentatively selected as being sites for the final repository are willing to accept that responsibility unless there is an assumption by the Federal Government of full responsibility, full liability, and full accountability for accidents which occur within the boundaries of their States.

If we are going to instill confidence in the Nuclear Energy Program, we are going to have to say up front, before an accident occurs, who is going to be liable, who is going to be responsible, and to what extent. Again, I think the Federal Government's assumption of liability, strict liability, for accidents which occur with respect to the program is certainly the way to go.

No. 3, what we propose, is an equitable system. It provides direct responsibility on the part of the Federal Government. We don't believe that the same rationale which applies to liability for accidents that occur at nuclear plants can apply to the operation of a Nuclear Waste Program because we are not talking about encouraging nuclear energy by limitation of liability. Rather, we are talking about compensation for injuries resulting from operation of a totally Federal program. The Federal Government is going to have title to the nuclear waste. They are going to have full control over it. They are going to be responsible for securing and directing the Federal operators. Therefore, they certainly ought to have full responsibility to compensate for all resulting injuries or damages.

It provides a mechanism for timely consideration and payment of claims. It gives some uniformity; it prevents confusion as to whether or not the compensation program should be operated under the provisions of the Price-Anderson Act, the Federal Tort Claims Act, and so on. It says that the Federal Government will assume that responsibility and will make payments regardless of fault, contractual status, et cetera.

So we would ask the subcommittee to consider and adopt our recommendation. We think that it is equitable and supportable.

I would like to have my written statement made a part of the record.

Senator SIMPSON. Without objection, General Jones. Thank you.

STATEMENT OF HON. EDWIN LLOYD PITTMAN, ATTORNEY GENERAL, STATE OF MISSISSIPPI

Mr. PITTMAN. Mr. Chairman, we appreciate the opportunity of participating in this hearing for the reauthorization of the Price-Anderson Act. I am making my appearance and presentation as chairman of the subcommittee on high-level radioactive waste of the committee on energy of the National Association of Attorneys General, and on behalf of the attorney general's office of the State of Mississippi, and the Departments of Energy and Transportation of the State of Mississippi. Mississippi is one of the first-round repository States, so we have a high interest in the outcome of your subcommittee's and committee's work.

My comments will be directed toward the indemnification of the Nation's High-Level Nuclear Waste Disposal Program. Suffice it to say that our resolution urges Congress to enact legislation which provides the following:

That the acts of the Department of Energy and the Department of Energy contractors in the Nuclear Waste Program which result in accidents causing injury, loss of property, personal injury, or death create strict liability in the United States as a matter of law.

Further, that the acts of the governmental entities, such as the States or the affected Indian tribes, counties, or municipalities which result in injury, the loss of property, personal injury, or death, create strict liability in the United States as a matter of law, and that the acts of the Department of Energy and its contractors which result in the loss to the public health, damage to the environment, or economic well-being due to the failure of any activity or facility in the Nation's Nuclear Waste Program create strict liability in the United States as a matter of law. Any claims for any loss should be allowed to be made by the State in which the loss occurs on behalf of its citizens and the environment therein.

This does succinctly four things: Strict liability, full compensation, redtape-free claim procedures, and a Federal policy of holding harmless the States and the affected Indian tribes.

We think that the committee needs to go to the bottom line for the Nuclear Waste Program. The waste is the property of the Federal Government. The title goes to the Federal Government, therefore, the liability and the responsibility for liability associated with that title must go to the Federal Government.

When we have the first round of repository States, of which there are six, we add to it the second round of repository States, which are seven, and then we add those corridor States that we have involved. We have essentiall all of the contiguous States, the 48 States on this continent, and they are going to be affected in some way by the Nuclear Waste Program.

If nuclear waste comes to any of our States, I think that it is right that the people should request and expect that they would be protected by the Federal Government.

We submit, for the record, a copy of the National Association of Attorneys General's resolution regarding the amendment of the Price-Anderson Act, and request that these comments be made a part of your record.

Senator SIMPSON. Without objection.

Mr. PITTMAN. I would introduce, and I apologize for not introducing Assistant Attorney General Mack Cameron of the State of Mississippi. We will submit to whatever questions you might have.

Senator SIMPSON. Thank you very much. It is nice to have you here, Mr. Cameron.

Let me ask you first whether, aside from the liability of DOE contractors under the Price-Anderson Act, we should provide for the Federal Government itself to be directly liable for the actions that it takes in carrying out the Nuclear Waste Policy Act.

Mr. PITTMAN. I think, Mr. Chairman, from our standpoint, from Mississippi's standpoint, that you should be directly liable because the entirety of the Waste Management Program is the direct responsibility of the Federal Government.

Senator SIMPSON. As I understand it, the Federal Government's liability is, of course, defined by the Federal Tort Claims Act, a rather structured effort.

To what extent do you think that the Federal Government should be directly liable, again, and what changes would you propose that we, in Congress, might make in the Federal Tort Claims Act to provide for direct liability of the Federal Government.

Mr. JONES. Mr. Chairman, I don't think that there would be any changes necessary in the Federal Tort Claims Act if you accepted our suggestion to make the Federal Government directly liable for accidents occurring with respect to the Nuclear Waste Program.

It would be our feeling that that is where the liability lies, and that is where compensation ought to be sought. It ought to be a procedure that could be utilized as an alternative to pursuing a claim under the Federal Tort Claims Act.

We are suggesting that there be strict liability which would remove the defenses which would be available possibly under the Federal Tort Claims Act. We don't see it as being a procedure that has to be handled under the Federal Tort Claims Act, but as an independent procedure for recovery, to compensate people who are injured by nuclear waste accidents.

Senator SIMPSON. What would we achieve, if anything, by making the Federal Government strictly liable, in addition to the DOE contractors, insofar as your interest in securing equitable, efficient, and full compensation for accidents involving the High-Level Waste Program?

Mr. JONES. We get away from the legal fiction that you have to pursue some contractor, and then have the Federal Government indemnify him. I think this is going around the barn to accomplish what we really want to accomplish in the first place, and that is to have a system where people can get fairly immediate compensation, where the compensation is paid without question as to contractor status, fault, or any other such concerns.

We just feel that it is the better system which will instill some public confidence in the people out there in the States where the nuclear waste is being transported through, or where it is being stored in either a temporary or a final repository.

Senator SIMPSON. Let me ask you this. How much, if any, of the Price-Anderson Act structure should we retain, or is your proposal a substitute for that authority?

Mr. JONES. Essentially, we are asking to add some coverage, which could either come through the Price-Anderson Act or come through an independent piece of legislation not necessarily part of the Price-Anderson Act, which will cover an area that may or may not be covered presently under the provisions of the Price-Anderson Act, and that is the question of compensating for accidents in the storage and transportation of nuclear waste.

When the Nuclear Waste Policy Act was enacted, providing that the Federal Government will take title to high-level nuclear waste when the program becomes operational, I think that it essentially created some ambiguity as to whether or not there may or may not be full coverage under the Price-Anderson Act itself for damages related to the High-Level Waste Program.

What we are asking you to do is to address an area which may or may not be addressed by existing law or by any of the proposals that are being made to extend that legislation.

Senator SIMPSON. As lawyers, all of us, what do you think about the waiver of defenses provision of Price-Anderson, would you retain that?

Mr. JONES. With respect to the program itself and its application to commercial operators, and so on, I am not sure that we have the mandate or authority to address that question, but I don't see any problem with that in my own view.

What we need to do is make clear that we are only addressing, with regard to our proposed resolution, the question of what occurs when the Federal Government takes title of that high-level nuclear waste, and make it clear that that is a program separate and apart from any other coverage under Price-Anderson.

Senator SIMPSON. As I looked at your thoughts on limited liability, I want to be sure I understand what you are interested in. Do you say that we should require the Federal Government to set aside funds in advance of an accident to pay potential liability claims?

Mr. JONES. What we are saying is that the responsibility ought to be unlimited. Again, it is a little bit beyond the scope of our authority, but strictly in my own view, I think that we could look at a proposal, such as has been made by Representative Sid Morrison from Washington, which would mandate the first $5 billion of any compensation to come out of the nuclear waste fund, and any additional amount to come out of general treasury funds. His approach certainly appeals to me, but I can't really, on that point, speak on behalf of the national association.

Senator SIMPSON. That is a process of interest to us, how these funds will be available without the need for Congress to appropriate them, finding out what that process would be, and yet being fully cognizant that the Congress must appropriate all funds expended by the Federal Government, when and in what amount should Congress be appropriating here.

Are we in a place where we are to appropriate whatever comes out of the system, whatever the jury or the judge says to victims of a nuclear waste repository accident?

It is obvious, as you see just in this brief hearing this morning, that everything in the commercial nuclear field is a potential catastrophe waiting to happen. I have been involved in this now for 7 years, and we find that great catastrophes appear throughout the United States in every other form of activity, except here. We seem to sleep through those, and we are waiting for this one. Everybody is waiting. We can't wait, we are all excited about the cataclysm coming, I guess.

I think it was an interesting bit of testimony, and you have been through it as attorneys general and public officials, that after Three Mile Island, 52 percent of the people in an interview were advised or said that they thought a nuclear commercial utility had the ability to blow up like an atomic bomb. That, of course, is impossible. A lot of things can happen, and that is the kind of thing I have to play with as chairman of the Subcommittee on Nuclear Regulation.

We are all waiting for this event, which will be even better than a transient, I am sure. When it comes, if it comes, it will break the bank anyway, because people will run back to the Federal Treasury and there won't be enough. I can just see that, there isn't any question about that.

I am just rattling a bit, but do you have any thought on that now?

Mr. PITTMAN. If you put a cap on it, it won't break the bank, that is first. Second, really we haven't gotten to the point of telling the States that they are going to be held harmless. We are a first-line State. We have nuclear powerplants in our State. So it is a problem of great public concern, and as of yet, the State, insofar as nuclear waste is concerned, has not been told that it will be held harmless, nor have we seen that the Department of Energy is willing to accept strict liability.

Mr. Rusche testified this morning that he supported our position, but he didn't think that we needed any amendment. If our position is right, and if there is any question as to whether or not we are in fact covered under Price-Anderson, we ought to amend it to clear up that ambiguity or that doubt, so that the States, at least, as they wrestle with this problem of being a nuclear waste repository, have the comfort of knowing that as a State they have no liability. Then our citizens, who are adversely affected and fearful of nuclear power or nuclear waste, are told that they will be compensated, fully compensated if there is some incident or accident. If you put a cap on it, I don't know that we lessen a great deal the full compensation. General Jones mentioned the $5 billion cap, and then you go for congressional consideration. It seems reasonable to me, and it would be reasonable, I think, for our State's position.

Mr. JONES. Mr. Chairman, I don't think we are implying that there is going to be any cataclysm or catastrophic event. What we are saying is that in the event that there should be one, we need to be able to assure our people that there is going to be a compensation system in place, that we are not going to be draining the treasuries of the States for some reason or another because somebody was able to nail the State with some small portion of negligence.

As I indicated previously, our position that we advanced here is advance by both supporters and opponents of nuclear energy. I certainly consider myself a supporter of nuclear energy. If you would authorize a fast breeder reactor for the Idaho National Engineering Laboratory, I would be glad to take the news back home.

Senator SIMPSON. You Idaho guys are tough. You have a couple of good, tough ones in the U.S. Senate.

Mr. JONES. I don't think that anything is going to happen, but we certainly believe that there ought to be some mechanism in place.

Senator SIMPSON. I thank you.

Our problem is to try to reach a figure which gives confidence. In the proposal of Senator McClure from Idaho and myself, it is $2.4 billion, and then back to the Federal Treasury if that doesn't work. I don't know what better you can do there.

There are some issues that I want to ask, and I will do that in writing, about subrogation and where we might be there. You might share your thoughts with me on that. I think that that is interesting, too, if we get to that. Should they have the right to pursue subrogation, if they are asked to pay the tab for an accident. I will get those questions to you in writing.

I really appreciate your appearing here, and I thank you very much.

Mr. JONES. Thank you, Mr. Chairman.

Senator SIMPSON. Before I introduce the next panel, I would like to acknowledge the arrival of Senator Gorton from the State of Washingto. Slade, do you have a statement that you would care to make at this time?

Senator GORTON. I have no statement Mr. Chairman, I just came by to welcome the delegation from my State.

Senator SIMPSON. Thank you for coming.

Our final panel of the day, the Honorable Joseph A. Strohl, chairman of the Wisconsin Radioactive Waste Review Board of Madison, WI; the Honorable Al Williams, chairman of the Energy and Utilities Committee of the State Senate of Washington in Olympia; James Davenport, special deputy attorney general, State of Nevada, a former staff member of this committee; William Clausen, senior project manager of the Minnesota High-Level Radioactive Waste Program of St. Paul, MN; Melvin Sampson, the vice chairman of the Yakima Tribal Council of Toppenish, WA; and Terry Husseman of the Energy Facility Site Evaluation Council of Olympia, WA.

It is good to have you all here. We will be pleased to have your testimony.

STATEMENT OF HON. JOSEPH A. STROHL, CHAIRMAN, WISCONSIN RADIOACTIVE WASTE REVIEW BOARD

Mr. STROHL. Mr. Chairman, thank you for the opportunity to appear today concerning reauthorization of the Price-Anderson Act. I am appearing on behalf of Gov. Tony Earl and the Wisconsin Radioactive Waste Review Board. The State of Wisconsin and its citizens are vitally concerned about nuclear accident liability. As chairman of both the Wisconsin Radioactive Waste Review Board and the Wisconsin Senate Committee on Energy and Environmental Resources, I can personally attest to the interest of our citizens in this issue.

Wisconsin is a major nuclear State. We have four nuclear powerplants in our State, and four on our borders. We are also a major corridor for transportation of spent fuel across this country. Also, Wisconsin is one of 17 States being considered for the second repository.

My written statement addresses Wisconsin's concerns about nuclear accident liability in each of these three areas: Commercial power reactors, transportation of spent fuel, and the U.S. DOE's repository program.

My comments here today are organized according to your list of questions and focus primarily upon accident liability issues relating to DOE's implementation of the Nuclear Waste Policy Act. I will now respond to the four or five questions that were submitted to us.

We believe that the Price-Anderson Act should be extended, but in our opinion major changes are required as detailed in our written statement.

Regarding commercial nuclear reactor accidents, our policy should be full and timely compensation for injured parties, and full reimbursement for Federal, State, and local governmental expenditures. We recommend that Congress adopt the approach originally suggested by the U.S. Nuclear Regulatory Commission in 1983, which would levy a $10 million retrospective premium on each reactor for each incident until all claims are satisfied. The same mechanism should be applied in the case of transportation accidents involving commercial spent fuel and high-level waste prior to DOE's assumption of title to these wastes in 1998.

Regarding accidents resulting from DOE activities to implement the Nuclear Waste Policy Act, our policy should be full compensation for damages, full direct liability by the Federal Government, regardless of contractor involvement, and payment of damages from the nuclear fund created by this act. That, of course, would only pertain to the waste that is coming from the commercial industry, and not from defense-related industry.

To this end, we recommend that Congress create an entirely new section of Price-Anderson applying to DOE waste management activities.

Regarding transportation of spent fuel and high-level waste prior to DOE assumption of title, we recommend that the same sound system of risk management currently required for fixed facilities be extended to NRC licensed shipments. This should include the following: One, involve the NRC in determining the need for shipments; two, an environmental assessment of the proposed route; and three, the development of emergency response plans specifically tailored to the proposed route.

As you know, Mr. Chairman, nuclear plants must meet these tests. We believe that the transportation route should also meet these, and Senator William Proxmire is drafting legislation to accomplish this.

In reference to question No. 2, we believe that the modifications to Price-Anderson that we are here proposing would have the effect of encouraging greater accountability on the part of the nuclear utilities operating commercial reactors, greater accountability on the part of DOE in its implementation of the Nuclear Waste Policy Act, and greater accountability on the part of the contractor-carriers who transport the commercial spent fuel.

Regarding question No. 3, we first believe that Congress should not retain the basic framework of indemnification agreement regarding DOE waste management activities, including transportation to an MRS or a geological repository. We also believe that the Department of Energy should be directly responsible for all activities in implementing the Nuclear Waste Policy Act.

Full Federal liability is essential for State and public acceptance of the repository program. DOE should, of course, attempt to recover damages resulting from contractor negligence. We believe that the waste fund is the appropriate source of funds for payment of accident claims resulting from DOE waste management activities.

If sufficient funds are not available in the fund at the time the damages are awarded, then DOE should borrow funds for this purpose from the Federal Treasury, and repay the borrowed funds with future receipts from the 1-mil-per-kilowatt-hour levy.

Regarding the strict liability, we recommend a statutory waiver of defenses for all accidents resulting from DOE waste management activities under the Waste Policy Act. We believe strict liability provides the most assurances of compensation for the public.

I will close, Mr. Chairman, by pointing out one other thing that is in our testimony that has not been commented on yet today, and that has to do with the 20-year statute of limitation. I understand you are considering extending that to 30 or 40 years.

We suggest a different approach, and that is an approach using point of discovery. Once a person realizes that they have a health problem resulting from exposure to radiation, whether that occurred 10 years after the accident or 40 years after the accident, we believe they should have 5 years to recoup funds for the damages that have occurred to them.

With that, Mr. Chairman, I will conclude my testimony.

Senator SIMPSON. Thank you, Senator Strohl.

Now, Senator Williams. I remember your testimony when we had hearings in Seattle some many months ago. It is nice to see you again, sir.

STATEMENT OF HON. AL WILLIAMS, CHAIRMAN, ENERGY AND UTILITIES COMMITTEE, STATE SENATE OF WASHINGTON

Mr. WILLIAMS. Thank you, sir. It is nice to be here. Again, thank you for the invitation to testify.

I did submit a copy of my written testimony, which I assume you would enter in the record.

Senator SIMPSON. Without objection.

Mr. WILLIAMS. What I would like to do is simply amplify that and make some additional comments from some notes I have.

As to the number of questions that you asked, we have not generally been dealing with Price-Anderson as it relates to its extension related to the powerplant construction, and that sort of thing. I think our assumption there is that it was a major piece of legislation to begin with, and it has a number of issues that the industry is very involved in. I think we, too, as Senator Strohl has indicated, would prefer that liability related to nuclear waste be treated separately, whether by a separate amendment to Price-Anderson or to the Nuclear Waste Policy Act, or as a measure on its own. I think that the issue of liability for radioactive waste accidents should be addressed in a separate piece of legislation. So that the issue can stand or fall on its own merit. It is basically to those points that I would like to comment further.

You know, of course, that this is a major issue in the State of Washington. Our C & C process has come to a halt. It is on hold pending resolution of this issue, and hopefully Congress will deal with it. The liability issue is one of the most important issues in the State of Washington with respect to the disposal and transportation of radioactive waste.

I also might indicate that NCSL, the National Conference of State Legislatures, had its national conference in Seattle very recently, and we also, like the attorneys general, passed a resolution requesting that the Federal Government assume strict and full liability in this area.

The proposal that the attorneys general's organization has been looking at, is being developed primarily by the AG's from the State of Washington, the State of Nevada, and the State of Texas. I think that it is going to be the document that the States generally will use to propose this consistency in terms of Federal liability.

I think we, in the State of Washington, are coming to a point where all of us support the general principles of the proposal namely that there be strict liability on the part of the Federal Government, that there be full compensation paid for those who submit claims, and that it be a simple process, so that victims need not wait for years and years of litigation to resolve their claims. The fourth item is holding the States and Indian tribes harmless.

I believe, we will support the idea of funds for victim compensation coming from the nuclear waste fund. That fund, if it is not adequate at a particular time, should have a process, as Mr. Strohl mentioned, for borrowing against future income to that fund, or perhaps a special process of assessment from the utilities that contribute to the nuclear waste fund.

I think you will find that those, and I think Senator Strohl indicated that also, are the basic principles of that proposal, and they are being adhered to by most of us now in the States.

I think that in my comments there, I have answered questions.

Senator SIMPSON. Thank you very much, Senator.

Now Jim Davenport.

STATEMENT OF JAMES H. DAVENPORT, SPECIAL DEPUTY ATTORNEY GENERAL, STATE OF NEVADA

Mr. DAVENPORT. Thank you, Senator.

Senator SIMPSON. How does it feel sitting out there instead of up here?

Mr. DAVENPORT. I was just going to comment on that. It is easier sitting up there than it is sitting here, but perhaps more fun sitting here than sitting there.

I am James Davenport, and I appear before you today on behalf of the State of Nevada, which I serve as special deputy attorney general. I am here today on behalf of Governor Bryan, Attorney General Brian McKay, and Senator Thomas Hickey of the Nevada Legislature. Attached to my testimony is a letter from Senator Hickey, and a copy of the resolution passed by the Nevada State Legislature addressing the issue before us.

Rather than give my entire statement, I would ask that it be included in the record, and I then would go on to associate the position of the State of Nevada with that expressed by the attorneys general in the earlier panel. In fact, Attorney General McKay was interested and involved in the enactment of the attorneys general's resolution, as was Governor Bryan interested in and, in fact, it was he who initiated the Governors' resolution on the same subject, which I believe you also have.

I would like to speak to a couple of issues. The first is that the discussion to date, primarily among staff and persons interested in the Price-Anderson issue, has been confused by the use of the words "indemnification," "liability," and "limit on liability." Basically a limitation on liability is an abnormal situation, abnormal to the general rule that a person is fully responsible to the full extent of all claims for his own acts.

In this area, we have a defense created by Federal law which may be interposed by a defendant that says: I am not liable beyond the limit of $500 million. That is the abnormal situation which the attorneys general's resolution, and the Governor's resolution, and the State of Nevada propose be removed in the nuclear waste area.

In addition to that, we advocate that the defendant in those cases not have causal defenses, namely, defenses based on who was the perpetrator of the injury, and that is how you get strict liability.

The question may arise in your mind: Why can't strict liability be created through State law? As has been discussed this morning, the common law of the States is that owners of hazardous materials—I am sure that nuclear waste would be included in the definition of hazardous materials—will be strictly liable.

The problem is that the defense of limited liability is a Federal defense, and a State legislative enactment, or even the judicial development of the common law in a particular State, cannot undo the congressional enactment because of the supremacy of Federal enactments.

So we are in a situation where only a Federal remedy will accomplish what the States want to accomplish. We have two categories of cases: Actions against the defendant contractor, and actions against the defendant United States. The contractor category would be the one in which the $500 million defense would be interposed. The action against the United States would be the one, as you have described, which would currently go under the Federal Tort Claims Act, and would have the standard problems that a plaintiff meets in going into that action, including, as was testified to by Ms. Kuznick earlier today, no strict liability in those cases. You come up against defenses both ways.

The bills that you have before the committee, S. 1225 and S. 1761, don't adequately address the problem. S. 1225 attempts to address the problem by increasing the amount of aggregate liability described by Price-Anderson, by making clear that Price-Anderson applies to high-level nuclear waste materials, and by creating the legal fiction that if injury occurs involving DOE, where there is no DOE contractor, then DOE itself would be its own contractor.

I am sure, Senator, in practicing law yourself, you learned not to trust legal fiction. The creation of strawmen in the law has not been the law's greatest accomplishment. Basically, what S. 1225 would do, and S. 1761 has the same problem, is create a legal myth that the DOE would become its own contractor, in other words, could indemnify itself against its own liability.

What we would prefer is a direct statement that the Federal Government would be liable so that we would not have to do, as Attorney General Jones described in Idahoan language, "go about the barn" to accomplish the desired end.

Senator SIMPSON. Thank you very much, Jim.

Mr. Clausen, please.

STATEMENT OF WILLIAM CLAUSEN, SENIOR PROJECT MANAGER, MINNESOTA HIGH-LEVEL RADIOACTIVE WASTE PROGRAM

Mr. CLAUSEN. Thank you, Mr. Chairman. I want to thank you for providing the States and tribes with the opportunity to discuss the issue of Price-Anderson reauthorization today. I have prepared some written comments, and I would like them to be submitted as part of the record.

Senator SIMPSON. They will be admitted, without objection.

Mr. CLAUSEN. Having said that, I think I would like to focus on some of the high points I tried to make in the testimony.

First of all, Minnesota is in the same position as Wisconsin and the first-round States that are here today. We are candidates for a high-level waste repository and we are keenly interested in the reauthorization of Price-Anderson. We think that the shape the reauthorization takes will send a powerful signal to the States on how far the Federal Government will go in ensuring that the repository system established is the safest as possible one.

One principle we would like to see incorporated into the Price-Anderson reauthorization is the idea that Price-Anderson would explicitly apply to all High-Level Waste Program activities. That position was supported by Mr. Rusche here today, and we were very pleased to see that. We were also pleased to see that various versions of the reauthorization include that principle.

The second principle is that the Federal Government should accept full responsibility for the consequences of its Nuclear Waste Disposal Program. In practice, this means that the cap on liability for Federal facilities and contractors should be removed.

We think, once again, that this is an opportunity for Congress to demonstrate its confidence in the DOE program, and its acceptance of full responsibility for the consequences.

States, which once accepted as a repository, will serve a very important national purpose, and as a matter of fairness, their citizens should not be asked to bear a part of the cost of the Waste Program through personal illness and injury, loss of property, and loss of well-being.

At a minimum, citizens will expect the Federal Government to provide full compensation for reasonable and legally valid claims.

As a State which may one day negotiate a consultation and cooperation agreement with the Department of Energy, we are disturbed by the inability of DOE and the State of Washington to successfully conclude their C & C negotiations because of conflicts over the extent of liability coverage. We think that the disagreement has proven to be a serious stumbling block to Federal and State relations, and Congress now has an opportunity to resolve conflicts before the process goes any farther, and allow the States and DOE to focus on matters more directly related to the Repository Program once C & C negotiations begin.

The final principle we would like to see incorporated in the reauthorization is that the system ought to provide a clear, understandable method of compensating victims, including a provision for rapid recovery of damages.

These points have been brought up during testimony today, Mr. Chairman. In closing, I would like to say that we appreciate the work of the first-round States in advancing some of these ideas.

Senator SIMPSON. Thank you very much, Mr. Clausen.

Now, Mr. Sampson, please.

STATEMENT OF MELVIN SAMPSON, VICE CHAIRMAN, YAKIMA TRIBAL COUNCIL

Mr. SAMPSON. Thank you very much, Mr. Chairman. I have submitted a copy of my testimony, and I would appreciate it if it could be included in the record, and I will proceed to summarize that.

Senator SIMPSON. Without objection.

Mr. SAMPSON. As the vice chairman of the Yakima Tribal Council, I appreciate this opportunity to present the views of the Yakima Nation on the important issue of liability for nuclear activities.

Before discussing our Nation's views concerning liability for nuclear accidents, I must state that the primary assets of the tribe, other than our people, are the land and natural resources within and surrounding the Yakima Reservation, which we have treaty-guaranteed rights to enjoy and use forever. Those resources are fundamental to the lifestyle, culture, and religious practices of the Yakima people.

For the loss of those treaty-guaranteed rights, the Yakima people could never be compensated.

The Yakima Nation is one of the three affected Indian tribes with respect to the potential Hanford candidate site for a high-level radioactive waste repository. We are very interested in the issues of liability and compensation for damages as they relate to the Waste Disposal Program. However, the Yakimas' concerns about liability for nuclear activities are not limited to high-level waste disposal. All of the diverse Federal and commercial nuclear activities taking place at the Hanford site are of concern to us.

We feel strongly that all Federal nuclear activities should be given complete coverage, with full liability under Price-Anderson. The risk posed by the other activities is probably just as great as that posed by the High-Level Waste Program. I will briefly discuss several of the specific issues which the Congress is presently considering in reference to the liability limit.

The existing law's limits on the liability of those engaged in nuclear activities result in a major and unjustifiable shifting of the risk of this technology to people living near the facilities. The limits also weaken the incentives for safety which accident liability provides in almost every other industry.

The potential for damages from failures in the waste program is unknown. Who can say, for example, what it might cost to prevent or clean up contamination of the Columbia River. Injuries resulting from a serious waste repository failure could be ongoing for literally centuries.

The treaty of 1855 between the Yakimas and the United States guarantees to the tribe that, among other things, the Yakimas retain the perpetual right to take fish from all usual and customary places in the Columbia and the Yakima Rivers. If accidents or failures at any of the nuclear facilities at Hanford resulted in a serious contamination of the rivers, a fundamental part of that bargain will be destroyed.

From our standpoint, there is no amount of money that could actually compensate the Yakimas for that loss. However, even putting aside the immeasurable harm to our way of life, the compensable losses alone would be enormous.

The Yakima Nation recommends that Price-Anderson be amended to provide unlimited liability for both licensed commercial and Federal nuclear activities. Although it does not go far enough with respect to Federal nuclear activities other than waste management, we support the bill recently introduced by Senator Stafford, S. 1761, in this regard.

In relation to funding sources to fund unlimited liability, we support the approach taken in S. 1761. That proposal would provide as much funding as is needed for as long as it is needed.

For the Waste Disposal Program, the Yakima Nation feels that the nuclear waste trust fund is the best source of compensation. The Nuclear Waste Policy Act establishes a policy that the users of nuclear power should fund the full cost of waste disposal. The legislation should also provide for contributions to the trust fund from the Federal Treasury to cover the cost of Federal waste.

For other Federal nuclear activities, such as defense or fuel cycle facilities, the Federal Treasury is the appropriate source of funds. We can understand that Congress is not eager to accept the fiscal implications of full liability for its nuclear activities, but that is the only ethical course to take.

In reference to extraordinary nuclear occurrences, the extraordinary nuclear occurrences distinction in the present law should be abolished. The overall seriousness of an accident is not related to the merit of individual claims. Instead the waiver of defenses provision should be applied to all nuclear incidents.

Also, the statute of limitations should be waived until 5 years following the discovery of injury. The arbitrary 20-year cutoff in the present law should be eliminated.

In conclusion, Congress has the opportunity this year to correct serious deficiencies in the Federal nuclear liability scheme. At a minimum, the Yakima Nation strongly urges you to eliminate the liability limits, clarify that unlimited Price-Anderson coverage extends to all Federal nuclear facilities and contractors, and strengthen the waiver of defenses along the lines suggested above.

Although it is deficient in a couple of respects, we feel the best overall legislation now before the Congress is S. 1761 introduced by Senator Stafford.

I thank you for this opportunity to present our views on this important subject.

Senator SIMPSON. Thank you very much, Mr. Sampson. Now, Mr. Husseman, please.

STATEMENT OF TERRY HUSSEMAN, OFFICE OF HIGH-LEVEL NUCLEAR WASTE MANAGEMENT, STATE OF WASHINGTON

Mr. HUSSEMAN. Thank you, Chairman Simpson. I appreciate the opportunity to present our views on this issue, which is important in our State.

My name is Terry Husseman. I am director of the Office of High-Level Nuclear Waste Management in the State of Washington. Our office provides staff to the nuclear waste board, which is the State's body with responsibility over high-level radioactive waste disposal.

Curtis Eschels, special assistant to Governor Gardner, intended to be here today. However, due to illness, he was unable to be here. I have submitted a statement from Mr. Eschels and I would request that it be entered in the record.

Senator SIMPSON. Without objection, so ordered. (See p. 147.)

Mr. HUSSEMAN. Thank you.

I would then like to summarize, rather than go through Mr. Eschels' entire testimony.

Our testimony arises from our State's designation as one of the first-round States selected by the Department of Energy under the Nuclear Waste Policy Act. We have followed the implementation of the act very closely, obviously. In fact, we are the only State that has been involved in the consultation and cooperation negotiations with the Department of Energy.

Our negotiations on the consultation and cooperation agreement came to a standstill, as Senator Williams indicated earlier, primarily because of the Department of Energy's stated inability to commit to levels of liability that our State's negotiators insisted upon. Our negotiators were fully backed by Governor Gardner, by the previous Governor, and by both houses of the legislature.

There were other issues that caused the negotiations to come to a nonfinal conclusion, however, liability was one of the keys.

For purposes relevant to this hearing, our experience has provided us with a very important recommendation. Congress must in the very near future address the problem of liability and compensation for damages and injury arising from the disposition of high-level radioactive waste under the Nuclear Waste Policy Act.

Governor Gardner has stated his position on the issue, and it is very similar to that stated in the resolution of the National Association of Attorneys General, which has been stated as the position of several of the other States today.

To summarize the four cornerstones of recommended legislation would be that it provide for strict and absolute liability without regard to fault on the part of the Federal Government. Full compensation should be provided regardless of fault to all victims of any nuclear incident arising under the NWPA Program. It should be a simple process, with a minimal amount of redtape. The States, the tribes, and other local entities should be held harmless from liabilities that they might otherwise incur as they carry out their role in the act.

It is our opinion that many of the Nuclear Waste Policy Act programs will not be achieved without such legislation. It is fairly clear that no consultation and cooperation agreement is likely between DOE and the State. The basic objective of the Nuclear Waste

Policy Act, the operation of a repository, is jeopardized if this problem is not resolved. Liability, as we found out, as we went through the process in Washington State, is one of the key issues that the citizens come back to.

We are working, along with several other States, in developing a proposal which we are getting very close to some consensus agreement upon. When an agreement finally has been reached, we would like to bring it to this committee, and further discuss the subject at that time.

Senator SIMPSON. When you do get that, we would indeed like to review that in every way.

Let me just ask a few questions. I thank you all for your thoughtful review of things.

For those of you who support paying for liability claims out of the nuclear waste fund, how should we handle claims that might arise from nuclear-waste-related accidents that occur after many or all of the reactors that finance this fund have been shut down and decommissioned?

At some point, money from the utilities is no longer going to be flowing into those funds. What are your thoughts, if you can briefly respond?

Mr. DAVENPORT. Senator, I might try that one. It is a standard problem with any waste facility. You have the issue of perpetual care and maintenance of the location. We call that the institutional control period in the high-level nuclear waste area. It is obvious that if the waste fund is going to be responsible for liabilities, the Department of Energy will need to, in the later years of the closure of the facility, develop a fund for future contingencies, and that should be developed in the same proportion, on the same general policy basis, that the apportionment of current claims would be paid. In other words, if the current thinking is to take a certain amount from the waste fund up to a certain limit, then the suggestion would be, with respect to those future contingent claims, that a similar formula be applied.

Senator SIMPSON. Would anyone else care to respond?

Mr. WILLIAMS. If I might just add. I don't disagree with what Mr. Davenport has said, and I suspect that I would come to some similar conclusion also.

One area that I think needs some discussion and answers on is the question of defense waste. Defense waste now is going to be commingled, and yet it has not been determined, as I understand it, how defense is going to pay its share of the whole Waste Repository Program. The nuclear plants are, but the defense waste payment process or sharing has not been determined.

It seems, in any case, that defense should have some kind of obligation proportional to its sharing in the program. Obviously, then, defense has a commitment to the ongoing costs, even after the powerplants have shut down. I think that this is a factor that needs to be worked on.

Senator SIMPSON. I think we may have addressed that in the Waste Act, but that is very valid.

I gather, too, from reading your testimony, that many of you support making the Federal Government, as opposed to the contractor, directly liable for accidents involving the Nuclear Waste Disposal

Program. There are a couple of questions there, and I would ask you for your response.

Why should the Federal Government's liability for this program be any different than what is provided for under the Federal Tort Claims Act for all other Federal activities?

Second, does it make sense from a policy standpoint to provide for the Federal Government to be strictly liable for unlimited amounts, and yet also retaining those provisions from Price-Anderson that provide for the application of State tort law in making those decisions?

Mr. STROHL. Mr. Chairman, if I could respond.

We have suggested also that the Federal fund be fully liable. We didn't mean to imply by that, and I think I tried to indicate that in my testimony. It doesn't mean that you shouldn't at some point go and try to recoup from those contractors. We think that it is important that you go after those contractors, that DOE go after the contractors who may have caused the accident, or have been part of the problem.

The reason that we suggest that we first go after the nuclear waste fund is that we are convinced that the Federal Government is going to be here for many years to come, and the individual contractors, we are not so certain of. It is also to give the public the assurance that if an accident should occur in their State, there is this nuclear waste fund available to provide the financial coverage of the problems that have resulted to them.

It is more a way to assure the public that the funds are there, and that they don't have a long course of litigation to pursue to recoup damages. What DOE does with the contractors after the damages have been awarded, we would urge DOE to go after those contractors.

Mr. DAVENPORT. Senator, the Federal Government should be liable, unlike other programs, in other words, different than under the standard Federal Tort Claims Act.

The Nuclear Waste Program would have been conducted by the private utilities themselves were it not for the fact that the Congress decided that the issue was important enough that the Federal Government had to do it. So what we have here is a Federal activity, which is very proprietary in character. It is not governmental. The Federal Government is not engaging in exercising its discretion about what is good for the people in this case. It is conducting a program which would be done by the private sector were it not for the Congress' decision to move into it.

The fact that it has moved shouldn't change the public's expectation about recovery. If the private sector, if the utilities, were still managing their waste, there would be no Federal Tort Claims Act for the claimant to deal with. They would have, under the current law, the limitation on liability, and we would be here talking to you today only about that.

Senator SIMPSON. If we were to set up a system where the Federal Government is strictly liable for public liability claims, provide that the nuclear waste fund pay for the claims without any limit on the amount that can be drawn from that fund, would any of you be ready to allow sufficient flexibility in that approach for other responsible parties who might be liable for an accident to sue as well?

If a supplier, for instance, were grossly negligent in manufacturing a piece of equipment that, as it turns out, caused the accident, would you provide any recourse against the supplier?

Mr. **Williams**. In our concept of the Federal Government being strictly liable, we have always, as Senator Strohl just indicated, felt that there should always be recourse down through the system so that there is responsibility by the various contractors, subcontractors, or anybody else who is negligent in that process. But that determination, that whole litany of events that goes into who is responsible should not be something that the victims of an incident have to wait for.

If I understand your question right, anybody responsible in this system should not be able to avoid responsibility.

Senator **Simpson**. Including the political subdivision or the State?

Mr. **Williams**. Right now, unless you can find a way.

Senator **Simpson**. That is not an easy one.

Mr. **Strohl**. Senator, we spent considerable time debating that in Wisconsin. We can envision a scenario where a State bridge collapses and the DOE contractor's truck and cask go down into the Mississippi River, or some other entity.

We looked at first the nuclear waste fund as something that all ratepayers in Wisconsin—30 percent of our electricity comes from nuclear energy. Thus, as citizens of the State of Wisconsin, and we, as a State government, will be responsible for paying into the fund. Thus, we think that fund is the appropriate mechanism.

We have also looked at this as a Federal program. It is something that the Congress decided to take over. Thus, this is something that the Federal Government should be fully responsible for. We, as States, did not make that determination. It was the Federal Government who made that determination.

Senator **Simpson**. I am fascinated with that. I was a State legislator for 13 years, so I am very sensitive to it. What if we have the State dabbling in this area whether we like it or not? You are all very knowledgeable with what we are doing. If a State official is grossly negligent, what then?

Mr. **Strohl**. Fortunately, or unfortunately, depending on which day of the week it is, the Federal Act does not give the States much of a regulatory responsibility. We have lots of consultation, but we do not have those regulatory responsibilities. Thus, we don't believe that we ought to be held liable for accidents that might have occurred as a result of the Federal program.

Senator **Simpson**. I just wonder, do you support anything which would lead to recourse against the State if it turned out that it was, indeed, evidentiarywise, the State's actions that caused the accident, whether they are supposed to or not, or have regulatory authority or not, or whatever?

Mr. **Williams**. I guess I don't have any comment except to say that we need to talk about the subject some more.

Senator **Simpson**. You want to talk about something else. That sounds like a State legislator, that is the way I used to do it. Heck with the Federal Government, it was easy to do back there, make them pay for it. I remember those resolutions we used to pass. Do you still memorialize Congress? We used to do a lot of that. Of course, they never read them here, I found that out after I came.

Thank you very much. You have added a good deal of material for us. I do appreciate your making the long trip. Thank you so much, all of you.

I thank Jim Curtiss, Kate Kimball, Dan Berkovitz, and Priscilla Gallerano for their efforts in the hearing today, and we will continue tomorrow at 9:30.

[Whereupon, at 1:25 p.m., the subcommittee adjourned, to reconvene at 9:30 a.m., Wednesday, Oct. 23, 1985.]

[Statements submitted for the record, responses to written questions, and the bills, S. 445, S. 1225, and S. 1761 follow:]

STATEMENT OF
JAMES W. VAUGHAN, JR.
ACTING ASSISTANT SECRETARY FOR NUCLEAR ENERGY
U.S. DEPARTMENT OF ENERGY
BEFORE THE
SUBCOMMITTEE ON NUCLEAR REGULATION
COMMITTEE ON ENVIRONMENT AND PUBLIC WORKS
U.S. SENATE

OCTOBER 22, 1985

Mr. Chairman, it is a pleasure to be here to discuss the Department of Energy's position on extending the Price-Anderson Act--a key subject in the Department's continuing nuclear activities as well as in the viability of the nuclear power option in this country.

I will briefly discuss the recommendations made by the Department in our August 1983 report to Congress on extending the Price-Anderson Act, discuss its relevance to the Department's nuclear operations, comment on the safety record of the nuclear industry, and note how foreign governments have dealt with the indemnification issue. Finally, I will summarize the Department's views on continuing indemnification and liability protection for those organizations involved in nuclear activities.

BRIEF HISTORY OF PRICE-ANDERSON

In 1957, the Price-Anderson Act was added to the Atomic Energy Act of 1954 to (1) provide the public with an assured, timely source of funds in the event of a nuclear accident and (2) remove the deterrent to private sector participation in the use of nuclear power presented by the threat of potentially large liability claims in the event of such an accident.

The original Price-Anderson Act required that persons operating commercial nuclear power reactors producing 100,000 kilowatts or more maintain financial protection in an amount equal to the maximum amount of private insurance available (at that time $60 million) to cover public liability claims that may arise in the event of a nuclear incident. A nuclear incident is the name given to any occurrence (including an extraordinary nuclear occurrence) causing bodily injury, sickness, disease or death, or property loss or damage resulting from the hazardous properties of source, special nuclear, or by-product material. The Act also provided for Government indemnity payments, in an amount not to exceed $500 million, in the event that claims for an accident exceeded the amount of financial protection maintained by the powerplant operator. Government indemnity up to $500 million was also authorized for Government contractors engaged in nuclear activities. The aggregate liability for any person who may be liable for an incident was limited in the Act to the sum of the amount of Government indemnity plus the amount of required financial protection, which resulted in a limitation on liability of $560 million for commercial powerplant operators and $500 million for Government contractors.

The original Act also provided for expiration in 1967 of the Government's authority to indemnify. In 1965, Congress extended the Act until 1977, and identified a number of problem areas relating to the means by which persons might obtain prompt and adequate financial compensation. Therefore, in 1966, Price-Anderson was amended to provide that, in the event of a major nuclear accident, persons who may be liable for the accident would be required to waive certain defenses that would otherwise be available to them under state law. The waiver of defenses are triggered in the case of the declaration of an extraordinary nuclear occurrence, which is a severe nuclear incident defined by prescribed levels of radiation dose, radiation contamination, property damage, or personal injury. Provisions regarding emergency assistance payments and consolidation of claims were also enacted in 1966.

In 1975, Congress again extended the indemnity provisions of the Act for 10 years (from 1977 to 1987) and added a system of retrospective insurance payments to be provided by the commercial nuclear power utilities in the event of an incident connected with a commercial powerplant. Under this new provision, in the event of a nuclear incident causing damages in excess of the amount of private insurance available, each large commercial nuclear power operator would be assessed a prorated share of damages up to $5 million per reactor per incident. The purpose of this provision was twofold: (1) to eliminate the need for Government-funded indemnity, which occurred when private insurance reached $160 million (in 1979) and a sufficient number of reactors were licensed (in 1982) to meet a level of financial protection totalling $560 million; and (2) to increase the limitation on liability above $560 million by $5 million as each new reactor was licensed. Currently, there are 96 licensed reactors. Therefore, today the limitation on liability is $640 million ($160 million of private insurance plus $5 million for each licensed reactor).

The provisions regarding Government contractors were not significantly amended in 1975 and the Act has not been amended since that time.

In 1983, the Department of Energy and the Nuclear Regulatory Commission each submitted reports to Congress in accordance with subsection 170(p) of the Act, recommending continuation of the Act as it applies to their respective activities and proposing certain amendments to the Act.

The Department made five recommendations in its 1983 report and concluded that:

- The Price-Anderson contract indemnity system should be continued to ensure furtherance of the Department's statutory mission in research and development, production, defense and other nuclear fields, and protection of the public.
- The present Price-Anderson limit of liability in connection with the Department's contractual activities should be made equivalent to that provided for commercial licensed activities.
- The Price-Anderson Act should not be amended to include coverage for the cost of a precautionary evacuation when no nuclear incident in fact occurs.
- The Price-Anderson contract indemnity system should not be amended to include coverage for acts of theft or sabotage when the activity cannot be traced to a licensed or contractual activity and satisfy the criteria for coverage.

- The Price-Anderson Act should be amended so that the waiver of defenses provision applies to civilian and defense high-level and spent fuel waste facilities.

In the Department's August 1983 report on extending Price-Anderson, we recommended that the liability limit for DOE contractors equal that provided NRC licensees. DOE anticipated that the NRC would recommend an absolute liability cap. When the NRC issued its report in December 1983, the Commission recommended that the absolute liability limitation be changed to an annual limitation, a position with which the Department does not agree.

IMPACT OF PRICE-ANDERSON ON DOE OPERATIONS

The Department's nuclear activities include research and development, testing and production of nuclear weapons, nuclear materials production, naval reactors development, inertial confinement fusion, and the storage, transportation, and disposal of commercial spent fuel and high-level defense waste. Associated with these activities are production and research and development reactors whose operation is authorized by the Department of Energy. Also, the N-Reactor at the Hanford site--which produces electricity for commercial use--is authorized for operation by the Department.

The Department has indemnity agreements with 45 prime contractors (with over 60,000 subcontractors and vendors covered under these agreements through the omnibus provision of the Price-Anderson Act). An additional 64 contractors have 79 contracts executed pursuant to the Nuclear Waste Policy Act. These contracts provide that the Department will include in its contracts for the operation of any Department of Energy spent fuel and high-level waste facility (e.g., a geologic repository) an indemnity agreement based on the Price-Anderson Act that indemnifies not only the operating contractor but any other person who may be liable for a nuclear incident arising out of, or in connection with, such waste disposal activities.

During the past 28 years, there has only been one severe nuclear-related incident at Federal facilities. This incident, involving an Army reactor, resulted in the death of three U.S. servicemen. To put this in perspective, in 1984 there were seven work-related fatalities--none resulting from a nuclear accident--among the Department's 165,000 Federal and contractor employees. During that year, there were 304 fatalities in a total Federal civilian work force of approximately 2.8 million employees.

COMMERCIAL NUCLEAR POWER SAFETY

Since the beginning of commercial nuclear power operation in 1957, not a single death has been caused by radiation or other factors resulting from a nuclear incident. Only 112 incidents--none declared an extraordinary nuclear occurrence--have been reported to the commercial nuclear insurance pools since they began operation in 1957. During this period, a total of only $43 million has been paid for third-party claims, of which $41 million resulted from the Three Mile Island (TMI) accident. Payments for on-site property damage totaled $488 million, primarily from the TMI accident.

This is an outstanding safety record when compared to a wide range of other activities or technologies, most of which are perceived as being common, ordinary, everyday activities. Since 1957, some 1.4 million people have been killed in automobile accidents; nearly 23,000 in train accidents; some 44,000 in airplane accidents; nearly 200,000 due to fires or explosions (natural gas, etc.); and over 6,000 in coal mining accidents. This list of everyday activities, in which large numbers of people are killed each year, could be extended at length, and yet most of these activities are not perceived as being overly risky by the general public. This is in sharp contrast to commercial nuclear power, where not a single death has been caused by radiation, and yet a large segment of the public appears to be quite fearful about the safety of the industry.

The commendable safety record of the nuclear industry can also be illustrated by comparing it to the risk of being murdered, an event I believe most Americans consider rather remote. What we find, however, is that the latter prospect is not so remote. The Bureau of Justice Statistics estimates that the average American faces a risk of 1 in 133 of becoming a victim of homicide in his or her lifetime. The risk is much higher for certain groups; for example, the risk of homicide for males is estimated to be 1 in 84.

The high degree of safety of nuclear power can also be demonstrated by comparing the fuel cycle risks to the public and to occupational workers resulting from generating electricity from nuclear power versus coal-fired plants. Such comparisons have been required since 1979 as part of the Environmental Impact Statement for nuclear powerplants. The nuclear fuel cycle includes mining, uranium enrichment, fuel processing and fabrication, power generation, fuel storage, transportation, reprocessing, and waste management. The coal fuel cycle contains the equivalent steps but excludes uranium enrichment, fuel fabrication, and reprocessing. In a December 1984 paper authored by a Nuclear Regulatory Commission staff member, the total fuel cycle risk to the general public and plant workers was given as .59 to 1.7 fatalities per plant year for the nuclear fuel cycle and 15 to 120 fatalities per plant year for the coal fuel cycle. In fact, according to the risk estimates in this recent paper, the estimated fatalities per plant year resulting from coal transportation alone exceed the mean estimate of one fatality per plant year for the entire nuclear fuel cycle. This nuclear-to-coal comparison is presented solely to place the nuclear risk in perspective, and is not intended to suggest that electrical generation from coal is not safe. Another study, conducted in 1982, comparing risks on a per-megawatt/year basis found that using petroleum to generate electricity results in about 10 times more fatalities than nuclear powerplants, while use of natural gas in generating electricity results in about 75 percent fewer fatalities than nuclear. The safety record associated with the production of electricity from nuclear powerplants has been excellent and compares favorably with other electrical generation technologies.

It is frequently argued that the public's fear of nuclear power, despite its outstanding safety record, is due to the nature of the risk of nuclear accidents: that is, while the probability of an accident is very low, the potential for damage can be high. Upon further examination, however, this theory appears to explain only part of the public's fear of nuclear power. Otherwise, we would expect the public to have similar or even greater fears about many other situations and activities in which accidents have actually occurred. We need only cite some examples over the past 5 years. In December 1984, methyl isocyanate leakage at a Union Carbide chemical plant in Bhopal, India, resulted in some 1,700 fatalities and 200,000 injuries. In November 1984, tanks of liquefied natural gas exploded at a storage facility in Mexico City, killing 452 people and injuring over 4,000 others. In February 1984, a leaky gasoline pipeline in Cubatao, Brazil, exploded, killing over 500 people. In July 1981, two aerial walkways collapsed at a hotel in Kansas City, Missouri, killing 114 people. A November 1980 hotel fire in Las Vegas, Nevada, resulted in 85 fatalities. These catastrophic accidents all occurred in non-nuclear related industries and activities.

Nuclear power is safe but it continues to raise public fears. Although there have been no deaths caused by the operation of commercial nuclear powerplants, safety concerns constitute the largest set of reasons for public opposition to nuclear power. Nuclear reactors are designed, built, and operated with multiple safety systems to protect against equipment failure, human error, and natural disasters. Redundant systems monitor, control, and support the safe operation of the reactor at each powerplant. A utility company planning to build a nuclear powerplant is responsible for assuring the public that the plant will be built and operated safely. An

Environmental Impact Statement is prepared and approved as part of this process. In the nearly three decades that nuclear energy has been used to produce electricity, it has established itself as one of our safest and environmentally benign energy technologies.

Although the Three Mile Island accident was the worst incident in commercial reactor operating history, the Presidential Commission investigating the accident concluded that the radiation doses received by the general population were so small that there would be no detectable additional cases of cancer, developmental abnormalities, or genetic ill-health as a consequence of the TMI accident. This Commission estimated that the maximum radiation dose was 70 millirems to any individual in the off-site population. For comparative purposes, natural background radiation, to which the average American is exposed each year, is approximately 80 millirems.

While the nuclear industry has a proven safety record, the lack of familiarity by the public with nuclear power and the attention given to any abnormal nuclear occurrence, however minor, continues to raise fears that have no factual basis. For example, immediately after Three Mile Island, a survey conducted by Resources for the Future found 52 percent of the public believed a nuclear powerplant could explode like an atomic weapon, even though such an occurrence is a physical impossibility. Based on other surveys, there are continuing fears and misconceptions associated with the possible escape of radioactivity from normal reactor operations. These fears and misconceptions are not justified in light of the proven safety record of the industry. Estimates indicate that the average yearly dose to the average American from the normal operation of nuclear powerplants is substantially less than 1 percent of his or her annual dose from natural radiation.

FOREIGN INDEMNIFICATION

Although there are countries that have financial protection systems that do not limit liability, the immediate financial protection afforded the public in the United States is greater than in any other country.

In the Federal Republic of Germany, new legislation provides indemnification by private insurance, the government, and the plant operator. Private insurance and the government would provide approximately $375 million of coverage. The plant operator would then become liable for any claims in excess of this amount, limited to the assets of the operator.

In Switzerland, private insurance and government indemnification provide for up to approximately $450 million of insurance. Additional amounts could be made available through the plant operator's assets. Lastly, if additional funds are still required to pay claims, the government will provide them, but only after action by the Swiss Parliament. Two of the four nuclear powerplant operators in Switzerland are utilities that are largely government owned. Thus, the operator's assets are largely the government's assets and the Swiss Government would ultimately be responsible for compensating claims.

Under the Japanese system of indemnification, the operator must carry $39 million in private insurance and there is no limit on its liability. In the event there are insufficient funds for the payment of claims after the assets of the utility are exhausted, the Japanese Parliament will decide on the level of additional funds it will provide to pay claims.

FINANCIAL PROTECTION FOR DOE CONTRACTORS

Although the Department's contractors have compiled an excellent safety and health record over the last three decades, the nature of a nuclear accident (i.e., high possible consequence and low probability) is such that some form of financial protection is necessary for them to continue doing business with the Department. In this regard, the Department continues to support the rationale upon which it based its 1983 recommendation to Congress:

> A system of financial protection that provides the Department with authority to indemnify its contractors and subcontractors involved in nuclear activities is necessary for the Department to carry out its statutory mission. Without some form of indemnification, contractors at all levels may well refuse to continue doing business with the Department.

Commercial nuclear power is vital to achieving our goals of energy strength, stability, and security. Approximately 15 percent of our electricity is produced by commercial nuclear powerplants. The Government commitment to nuclear power includes the safe management and transportation of nuclear waste materials, the safe economical enrichment of uranium, and financial protection for the public in the event of an accident. In order to facilitate the Department's congressionally mandated responsibility for managing nuclear waste activities, the Department also continues to support the rationale upon which the nuclear waste related recommendation was made in its 1983 report:

> All high-level waste activities should be covered explicitly by some system of financial protection. The states have expressed the concern that possibly not all high-level waste operations are covered under the Price-Anderson system. The Department of Energy believes that the financial protection system adopted by Congress that insures against losses from nuclear accidents should include a provision that removes any doubt on the part of the states that Nuclear Waste Policy Act operations are indemnified. Such a step would go a long way towards removing an obstacle to state cooperation.

FINANCIAL PROTECTION FOR NRC LICENSEES

The financial protection made available by the present Price-Anderson system balances the limited liability granted the nuclear plant operator and others who may be liable against more certain, rapid, and widely available compensation for the public. Any changes and reforms that would alter this balance should be considered with great care.

The Department, therefore, considers that two guiding principles should lie behind any proposal to modify Price-Anderson:

o Although government regulation of the nuclear industry already ensures safety, a balanced Federal system of financial protection should continue to exist. The primary reason for this guiding principle is the high consequence/low probability nature of nuclear accidents.

o Any system of financial protection, which simultaneously meets the needs of the public and of the industry, should balance these needs in some equitable manner. The Price-Anderson system has "worked" in its 28 years of existence because it has balanced the public's need and industry's need. The present system reflects the public's desire for financial protection against extraordinary nuclear occurrences and industry's concern for a limit on its liability. Congress has carefully balanced these needs in the past, resulting in a system under which industry guarantees the availability of a substantial insurance fund that allows for the timely compensation of all parties. This is in stark contrast to other types of private protection with their attendant solvency problems. Also, in the case of an extraordinary nuclear occurrence, the waiver of defense provision would prohibit industry from using defenses that would otherwise preclude timely compensation and claimants would not need to prove who is at fault. In return for these unique benefits, Price-Anderson imposes a limitation on private liability.

OVERVIEW OF PROPOSALS INTRODUCED IN THE SENATE THAT WOULD MODIFY PRICE-ANDERSON

A number of proposals have been made that would significantly alter the original intent of the Price-Anderson Act. One such proposal, S. 445, would: (1) remove the limitation on liability; (2) eliminate the 20-year statute of limitations on claims; and (3) eliminate the requirement that an "extraordinary nuclear occurrence" must be declared before defendants are required to waive legal defenses ordinarily available to them under state law. Adoption of the provisions in this proposal is neither justified or equitable, and represents, in effect, punitive treatment for the nuclear industry. Removing the limitation on liability would not make unlimited funds available for compensation in the event of a nuclear accident, since liable parties can only provide amounts up to the limits of their assets. Elimination of the statute of limitations presents a particularly perplexing legal situation, where suits could be brought decades after an event, well after any basis for equitable resolution has dissipated. Finally, the elimination of the concept of "extraordinary nuclear occurrence" would encourage and give unfair advantage to plaintiffs in lawsuits for even minor "incidents" having no real environment or health impact, because the nuclear industry would be presumed to be liable even if they were not. In effect, such a provision would declare every "incident" to be equivalent to a serious nuclear accident for legal purposes, a position which has no technical merit. This is inconsistent with the practices followed in other industries; for example, although commercial airlines may carry $500 million liability insurance, claims against them are normally subject to state tort law without having to waive any legal defenses.

The Department does not support changes which would implement unlimited liability, eliminate the statute of limitations, or change the definition of an "extraordinary nuclear occurrence" in such a way as to make minor incidents equivalent to nuclear accidents.

S. 1761, as modified by Amendment 770, would continue to limit the liability of DOE contractors not engaged in high-level radioactive waste management activities to $500 million. The limitation on liability for DOE contractors engaged in high-level radioactive waste activities would be eliminated. Liability limits for NRC licensees would also be eliminated, requiring annual payments by each licensee of $10 to $15 million in retrospective premiums until all claims are paid.

S. 1225 incorporates a number of important features into Price-Anderson and will affect DOE operations in four areas. First, S. 1225 would increase the financial protection available to the public as a result of DOE contractor activities to an amount equal to the financial protection available for NRC licensees. Under this proposal, the limitation on liability could approach $2.4 billion, depending on the number of licensed reactors and the retrospective premium assessed each reactor. Second, the bill would explicitly apply Price-Anderson to DOE activities involving the transportation, storage, or disposal of nuclear waste. Third, S. 1225 would establish a requirement for a Presidential Report as well as a mechanism for congressional review of DOE contractor accidents should liability claims exceed the amount of funds available under Price-Anderson. Fourth, the bill would extend the Department's authority to enter into indemnification agreements with DOE contractors for 25 years.

A system of financial protection that would include provisions similar to S. 445 and S. 1761, as modified by Amendment 770, would no longer balance the public's desire for rapid, certain, and widely available compensation and industry's need for liability protection. Society does not deprive any other enterprise of the benefit of tort law while imposing unlimited liability. It is unlikely that a system of financial protection that provides the public with prompt and certain payment could exist if the balance between the public's need and industry's need is not equitable. S. 1225 appears to reflect this important balance.

RECOMMENDATIONS

With regard to DOE contractors and operations, we recommend that:

1. A Federal system of financial protection covering persons who may be injured by a nuclear incident as well as persons who may be liable should continue to exist, but a limitation on liability should be retained. Such a system is necessary for the Department to carry out its statutory mission.

2. The waiver of defenses provision should explicitly apply to nuclear incidents connected with civilian and defense high-level and transuranic waste and spent fuel facilities.

With regard to NRC licensees and commercial operations, the Department recommends that:

1. Even though the nuclear industry has an outstanding safety record, the potential risk of a high consequence nuclear accident--despite its low probability--has led to wide support for some form of special financial protection covering persons who may be injured and persons who may be liable. This special protection, with appropriate limitations on liability, should be continued.

2. There is the need for a balance between the special financial protection and benefits provided the public and the protection that industry has given up that would otherwise be available under tort law.

This concludes my statement, Mr. Chairman. I will be happy to answer any questions.

PRE-HEARING QUESTIONS AND ANSWERS

Relating to the

OCTOBER 22, 1985, HEARING

Before the

SUBCOMMITTEE ON NUCLEAR REGULATION
COMMITTEE ON ENVIRONMENT AND PUBLIC WORKS
UNITED STATES SENATE

CHAIRMAN: SIMPSON

PRE-HEARING QUESTIONS AND ANSWERS

Relating to the

OCTOBER 22, 1985, HEARING

Before the

SUBCOMMITTEE ON NUCLEAR REGULATION
COMMITTEE ON ENVIRONMENT AND PUBLIC WORKS
UNITED STATES SENATE

QUESTIONS 1 and 2

WITNESS: JAMES W. VAUGHAN, JR.
ACTING ASSISTANT SECRETARY FOR NUCLEAR ENERGY
DEPARTMENT OF ENERGY

QUESTIONS SUBMITTED BY SENATOR SIMPSON

Question 1: Should the Price-Anderson Act be extended? If so, what changes if any should the Congress make in the existing Act?

Answer: The Price-Anderson contract indemnity system should be continued to ensure furtherance of the Department's statutory mission in research and development, production, defense and other nuclear fields.

The financial protection made available to the public by the present Price-Anderson system balances the more certain, rapid, and widely available compensation for the public against limited liability granted the nuclear plant operator and others--such as DOE contractors--who may be liable for claims arising out of nuclear incidents. Any system of financial protection, which simultaneously meets the needs of the public and the industry, should balance these needs in some equitable manner. Any changes and reforms that would alter this balance should be carefully considered, recognizing that the primary reason for this balance is the high consequence/low probability nature of nuclear accidents. The modifications DOE has recommended to Price-Anderson reflect this balance.

Answer 1 (continued): First, the present Price-Anderson limit of liability in connection with the Department's contractual activities should be made equivalent to that provided for commercially licensed activities. While the limitation on liability for DOE contractors and NRC licensees should be the same, the Department does not agree with the recommendation contained in the Commission's 1983 report to Congress that the retrospective premium assessment of $5 million per large commercial power reactor (greater than 100 megawatt) per incident be paid per year until all claims are met. We view this as a form of unlimited liability to which the Department objects.

Second, Price-Anderson should not be amended to include coverage for the cost of a precautionary evacuation when no nuclear incident in fact occurs. Experience to date indicates that the Department's nuclear programs pose no greater need for such protection than other Government programs involving potentially hazardous materials.

Third, the Price-Anderson contract indemnity system should not be amended to include coverage for acts of theft or sabotage when the activity cannot be traced to a licensed or contractual activity.

Answer 1
(continued): Fourth, the current definition of "incident" and "extraordinary nuclear occurrence" should be retained. These definitions form the framework for much of the Price-Anderson Act. To modify these terms to define every minor problem as equivalent to a serious nuclear incident--as some have proposed--would undercut the basic intent of the Act.

Finally, Price-Anderson should be amended to explicitly extend the extraordinary nuclear occurrence feature--which triggers the waiver of defenses--to include nuclear incidents connected with civilian and defense high-level and transuranic waste facilities and spent fuel activities, including transportation, storage, and disposal operations.

To summarize the Department's position on modifying Price-Anderson, Congress should not alter this important legislation by establishing unlimited liability, eliminating the statute of limitations, or changing the definition of an "extraordinary nuclear occurrence" in such a way as to make minor incidents equivalent to nuclear accidents. The financial protection made available by the present Price-Anderson system--a system that has "worked" for over 28 years--balances the limited liability granted to NRC licensees and DOE contractors against more certain, rapid, and widely available compensation for the public. Such a balanced system is essential for the Department to carry out its statutory mission.

QUESTIONS SUBMITTED BY SENATOR SIMPSON

Question 2: To what extent, if any, can or should the Price-Anderson Act authority be employed for the purpose of encouraging greater accountability on the part of those with whom agreements of indemnification have been reached under the Act, for the activities undertaken pursuant to those agreements?

Answer: Price-Anderson was enacted to meet two basic objectives. First, Price-Anderson removed the deterrent to private sector participation in atomic energy activities presented by the threat of potentially enormous liability claims in the event of a catastrophic nuclear accident. Second, Price-Anderson was designed to ensure that an adequate fund be available to the public to quickly satisfy liability claims if such an accident were to occur.

It would appear that Congress did not intend Price-Anderson to address accountability. Rather, in discussing the definition of "public liability" under the Act, the Senate Report explains:

> "The suggestion that was contained in the original draft legislation...that willful damages be excluded was not accepted since the damage to the public is the same, whether caused by any means--willful or nonwillful. However, the circumstances surrounding any nuclear incident, including the willfulness, would certainly be grounds for examining the possibility of suspending the operations under the license."

Answer 2 (continued): Therefore, the definition of "public liability" does not exclude liabilities arising out of the willful misconduct or any other specified type of conduct on the part of a person indemnified. Accordingly, DOE indemnification of its contractors, which covers public liability as defined in the Act, is not limited by any such exclusion.

The present system eliminates possible delays and uncertainties associated with the resolution of often difficult legal determinations and assures the prompt financial protection of the public in the event of a nuclear incident. Congress could amend the Act so that if a nuclear incident is found to have occurred as a result of bad faith or willful misconduct on the part of a contractor or contractor's representative, the Department could be permitted to bring suit against such parties for recovering the full cost of the indemnification up to the value of their assets.

Irrespective of Price-Anderson and how the Act may be used to foster contractor accountability, it is important not to lose sight of the fact that there are stringent safety requirements placed on those contractors that operate Government-owned nuclear facilities. Financial incentives

Answer 2
(continued): designed to make the operators of DOE facilities accountable for their actions already exist to assure that these facilities are safely operated. These incentives generally focus on the amount of the award fee--the payment DOE makes to a contractor who operates a facility based on that contractor's performance--and on whether the contractor who operates a DOE-owned facility will be retained when the operating contract expires. Certainly, decisions made on these matters will affect the compensation and careers of contractor personnel. Thus, Price-Anderson must be considered in the context of the measures which DOE already has available and which DOE uses to ensure that contractors are held accountable for the safe operation of DOE-owned facilities. To consider Price-Anderson in isolation from these interrelated incentives that affect contractor accountability and facility safety is inappropriate.

PRE-HEARING QUESTIONS AND ANSWERS

Relating to the

OCTOBER 22, 1985, HEARING

Before the

SUBCOMMITTEE ON NUCLEAR REGULATION
COMMITTEE ON ENVIRONMENT AND PUBLIC WORKS
UNITED STATES SENATE

QUESTION 3

WITNESS: BEN C. RUSCHE
DIRECTOR, OFFICE OF CIVILIAN RADIOACTIVE WASTE MANAGEMENT
DEPARTMENT OF ENERGY

Question 3: What approach should the Congress take with respect to determining liability and compensating the public for accidents that occur as a result of those activities undertaken by the Department of Energy involving the transportation, storage, and disposal of radioactive waste?

3(A): Should the Congress retain the basic framework of the existing Price-Anderson Act, under which all such issues regarding contractor liability are addressed in the context of an indemnification agreement with the contractor(s) responsible for carrying our those activities?

Answer: Yes, the Department has taken the position that the basic Price-Anderson system encompasses indemnity for the transportation, storage and disposal of radioactive waste, also, that any indemnification structure supplanting Price-Anderson should preserve such coverages for radioactive waste activities. Nuclear waste activities entail no inherently different characteristics which justify separate treatment from other nuclear activities. In fact, the technical characteristics of waste pose less potential risk and are more than bounded by the broad coverage extended for nuclear power reactors.

Question 3(B): Should the Department of Energy, as opposed to the contractors, be directly liable for actions that it takes involving nuclear waste transportation, storage, and disposal? If so, under what terms and conditions? What changes, if any, would you recommend to the Federal Tort Claims Act--the Act that currently governs the liability of the Department of Energy for such activities?

Answer: Under the Federal Tort Claims Act, the United States *is* liable for the acts or omissions of its employees in the same manner and to the same extent as a private party under like circumstances, subject, of course, to the enumerated exceptions to the provision contained in the statute. The Federal Tort Claims Act is not an activity specific statute. Because the United States is properly liable for its own acts or omissions, we would recommend that no changes be made to the Federal Tort Claims Act.

Question 3(C): Where should the funds to pay public liability claims from an accident involving nuclear waste transportation, storage, or disposal come from? What mechanism should be established for ensuring prompt payment of any public liability claims? Should the Congress appropriate funds in advance of an accident, so that a source of funds is readily available when such claims are made?

Answer: The Nuclear Waste Fund should bear responsibility for public liability claims chargeable to accidents arising from transportation, storage, or disposal of radioactive waste conducted under the provisions of the Nuclear Waste Policy Act.

The method of payment for waste related claims should be the same as for other activities covered under the provisions of Price-Anderson except that the waiver of defenses provisions of the Price-Anderson Act should be amended to specifically include waste activities.

Question 3(D) What standard of care should be adopted for determining liability for nuclear waste transportation, storage and disposal activities? Should that standard be imposed by the Federal government, or should the States be allowed the flexibility to adopt whatever standard they deem appropriate?

Answer: The standard used under the Price-Anderson system for determining liability for a nuclear incident is the standard utilized by the court having jurisdiction over the claim in accordance with State law. In the case of an extraordinary nuclear occurrence, the claimant would benefit from the waiver of defenses provisions and would not be required to prove negligence even if that were required under State law. This system appropriately retains the State's prerogative to enact its own standards. We see no reason to impose a separate or different standard for determining liability for nuclear waste activities.

Statement of M.G. Johnson
on Behalf of the Coordinating Committee of
Price-Anderson Contractors Policy Issues Study

Before the
Subcommittee on Nuclear Regulation
Committee on Environment and Public Works
United States Senate

October 22, 1985

Mr. Chairman and Members of the Committee:

My name is M.G. Johnson. I am Special Counsel at Bechtel in San Francisco and Chairman of the Coordinating Committee of the Price-Anderson Contractors Policy Issues Study.[1] I am accompanied by Omer F. Brown of Rivkin, Radler, Dunne & Bayh, counsel for the Study.

We appreciate this opportunity to appear before your Committee to discuss nuclear hazards indemnity coverage for DOE contractors under Subsection 170d of the Price-Anderson Act. We are glad you are holding this hearing of well in advance of the Act's expiration in 1987.

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[1] The Price-Anderson Contractors Policy Issues Study is an independent activity of the American Nuclear Energy Counsel sponsored by the Babcock & Wilcox Company; Battelle Memorial Institute; Bechtel National, Inc.; Fluor Corporation; General Electric Company; Stone & Webster Engineering Corporation; UNC Resources, Inc.; and Westinghouse Electric Corporation. Each of these entities now has one or more nuclear hazards indemnity agreements with the U.S. Department of Energy (DOE) under Section 170d of the Price-Anderson Act.

Subsection 170d of the Price-Anderson Act authorizes DOE until 1987 to enter into indemnity agreements with certain of its contractors for protection of the public in the unlikely event of a nuclear incident. Even though more attention historically has been focused on liability coverage for licensed facilities, such as nuclear power plants, Congress also should be concerned with public protection for risks arising out of DOE activities. In fact, with no new power plants now being ordered, the present expiration date may be of more immediate concern with respect to DOE contractor coverage, because it is clear that DOE will be entering into or renewing contracts for various nuclear activities, including those under the Nuclear Waste Policy Act, after August 1, 1987.

We submit that Price-Anderson coverage for DOE contractors should be extended as it has been twice before. In fact, we believe it should be mandatory for DOE to provide such coverage for contractors and suppliers in connection with government nuclear activities which could result in injury or damage. It then could be applied in more situations, such as waste management facilities, in the interest of maximum public protection.

We agree with the conclusion expressed in the August 1983 DOE Report to Congress (and reiterated by DOE in other hearings earlier this year) that the Price-Anderson indemnity system should be continued to ensure furtherance of DOE's statutory missions in research and development, production, defense and other nuclear fields, and protection of the public. Indeed, as DOE indicated, there would be strong reluctance on the part of existing and potential contractors to do nuclear business with the Department if DOE's authority to enter into Price-Anderson indemnity agreements were discontinued. The strong reluctance would apply especially to suppliers whose nuclear activities are only a small percentage of their overall businesses. This would lessen competition and otherwise increase costs to the Government. The strong reluctance also would extend down tier lines to subcontractors and equipment suppliers, including many small businesses throughout the country, who might be liable for a serious accident but not have the financial resources to cover that liability or the defense costs associated with such litigation.

While the the Federal Government's own nuclear activities (which usually are carried out by contractors) have had an extraordinary safety record, the possibility of a serious accident resulting in damages to the public unfortunately cannot be eliminated totally. Price-Anderson provides an assured and exemplary system of protection for the public in case that unlikely event ever happens.

Indemnification of government contractors for possible nuclear losses has been provided since the days of the Manhattan

Engineer District of the War Department in the early 1940's. Subsection 170d by its terms merely supplements other authority DOE has to indemnify its own contractors. Price-Anderson, however, rounds out that authority so as to better assure the protection of the public at large. Contractor coverage prior to the Price-Anderson Act often was inconsistent, subject to individual contract idiosyncracies, inapplicable to subcontractors, and subject to the availability of appropriated funds. Subsection 170d was carefully designed to correct many of these deficiencies and to provide a uniform system of public protection. We agree with DOE's conclusion that Price-Anderson should be extended.

Some have suggested that indemnifying contractors against nuclear liability somehow acts as a disincentive to safety at DOE facilities. This is simply not the case. DOE contractors have a number of incentives to act safely. Price-Anderson indemnity covers only nuclear liability. Contractors still are exposed to conventional, nonnuclear liability for which they may or may not have insurance coverage and which has a history of much greater damage awards in the past than nuclear claims. Poor contractor performance could lead to debarment from future DOE contracts, and could be damaging to their reputations. Additionally, DOE exerts close supervision over its contractors to ensure that the public health and safety are protected.

We have a few comments on three Senate bills now being considered to amend the Price-Anderson Act as a whole: If S. 445 were adopted, it would have an adverse impact on the DOE contractor program. The bill would eliminate the limitation-on-liability provision that is a fundamental feature of the Price-Anderson system. We believe that, instead of eliminating the limitation entirely as S. 445 would do, Congress should consider increasing the $500 million indemnity and limitation for DOE contractors to some appropriate figure. We are not prepared to suggest a number, but our tentative conclusion is that it need not necessarily be the same for government contractors as for power plant licensees, since different public policy considerations may come into play in the assumption of financial responsibility for Government activities. Nevertheless, we believe careful consideration should be given to developing an increased figure that would protect all parties by providing a readily available source of funds without eliminating the Congressional pledge embodied in the present Act that, in the event of an incident involving damages in excess of the statutory limit, Congress will take whatever action is deemed necessary and appropriate to protect the public. We agree the language in S. 1225 would reinforce this pledge.

S. 1225 and S. 1761 would extend the Price-Anderson Act for twenty-five years or fifteen years, respectively. We believe consideration should be given to making the contractor coverage provision permanent, subject to periodic review by Congress.

S. 1225 would "clarify" the applicability of the Price-Anderson Act to activities under the Nuclear Waste Policy Act. We believe the Price-Anderson Act in its present form can be applied to DOE waste management activities, as it is in the case of the Waste Isolation Pilot Plant. However, we certainly would not oppose a more explicit statement by Congress that the Price-Anderson Act applies to DOE waste management activities. And, we endorse the provision in Section 4 of S. 1225 that would make it mandatory for DOE to indemnify its contractors involved in nuclear waste management activities. In fact, as previously indicated, we believe it should be mandatory for DOE to extend such coverage to all of its nuclear contractors.

S. 445 would eliminate the "extraordinary nuclear occurrence" feature added to the Act in 1966 and require licensees and contractors to agree in advance to waive certain ordinarily available legal defenses for all "nuclear incidents". Congress considered and rejected this idea in 1966 on the ground that it would encourage nuisance suits. We believe that the 1966 reasoning was sound and still applies today. The purpose of the "extraordinary nuclear occurrence" provision was to give added protection to the public in the event of a significant accident by requiring the waiver of certain ordinarily available tort law defenses. That statutory protection now exists and should not be changed. If the threshold for determining whether a particular release constitutes an "extraordinary nuclear occurrence" is considered to be too high, it can be revised administratively by DOE or NRC. A statutory amendment that would be advisable is one to extend the "extraordinary nuclear occurrence" provision to nuclear waste management facilities as suggested by DOE and the State of New Mexico. Adoption of Section 7 of S. 1225 would accomplish this.

As indicated in Senator Stafford's floor statement of October 10th, S. 1761 does not address the limits on indemnification of DOE contracts that are not paid through the Nuclear Waste Fund. We oppose unlimited liability for activities under the Nuclear Waste Policy Act or other DOE nuclear activities, because it is inappropriate for Congress to write a "blank check" in advance of an incident. We especially are opposed to Amendment No. 770, which effectively would destroy the "omnibus" feature that has been a part of the Price-Anderson system since 1957. This amendment only would increase transaction costs by making it more difficult to settle suits subject to cross-claims. Additionally, we oppose excluding punitive damages from Price-Anderson coverage. Punitive damages should be preempted. And, again, eliminating coverage for punitive damages only would increase transaction costs and make it more difficult to settle claims because in today's tort system it is difficult, if not impossible, to separate punitive and compensatory damage claims.

In conclusion, after nearly thirty years of Price-Anderson Act indemnification, private industry has assumed, as Congress intended, a larger role in assisting the Federal Government in carrying out its own nuclear activities without any significant damage or injury to the public. In other words, Price-Anderson contractor indemnification is a system that has worked well. It should be extended again in substantially its existing form.

Attached are answers to the specific questions we were asked to address in Chairman Simpson's letter of July 16th.

I also would be happy to answer any other questions you might have.

Thank you again for this opportunity to appear before your Committee.

Attachment

Responses of Coordinating Committee of
Price-Anderson Contractors Policy Issues Study
To July 16, 1985 Questions of
Subcommittee on Nuclear Regulation
Committee on Environment and Public Works
United States Senate

1. Should the Price-Anderson Act be extended? If so, what changes, if any, should the Congress make in the existing Act?

A.1. The Price-Anderson Act should be extended since, without the nuclear liability protection which contractors can obtain only by reason of the Price-Anderson indemnity, no responsible, prudent engineer or contractor would assume the risks inherent in providing those goods and services which are vitally necessary to the essential D.O.E. nuclear programs.

The principal changes in the existing Act which would be the most desirable are:

a) Provision for automatic operation of the indemnity (currently discretionary with the D.O.E.) whenever a Government contract involves a nuclear risk. The current Act, coupled with applicable D.O.E. regulations, requires a D.O.E. determination as to the potential nuclear consequences of a contract which may be very distasteful from a political and public relations standpoint with the result that both the particular contractor and the general public may be subject to a substantial uninsured risk if that determination proves to have been overly optimistic.

b) Specific application of the Act (including the extraordinary nuclear occurrence concept) to transportation, storage and disposal of high level nuclear waste.

c) An increase in the amount of this indemnity and the liability limit to some appropriate figure.

2. To what extent, if any, can or should the Price-Anderson Act authority be employed for the purpose of encouraging greater accountability on the part of those with whom agreements of indemnification have been reached under the Act, for the activities undertaken pursuant to those agreements?

A.2. The Department of Energy, by regulation, by the contractual provisions it imposes on contractors and/or by the degree of supervision it exercises over the activities of its contractors currently possesses adequate authority to encourage appropriate accountability on the part of its contractors and the safety record of D.O.E. nuclear facilities over the years provides ample evidence that such authority has been utilized effectively. Injection of this new issue into the Price-Anderson debate would only serve to confuse the real purposes of Price-Anderson, namely the protection of the public and the assurance to the Department of Energy that its source of potential contractors will not be diminished substantially by the elimination of those many prudent contractors who will not undertake contracts for which the risks are disproportionately greater than the potential financial returns.

3. What approach should the Congress take with respect to determining liability and compensating the public for accidents that occur as a result of those activities undertaken by the Department of Energy involving the transportation, storage, and disposal of radioactive waste?

A.3. See Answer b) to Question 1 above.

3.(A) Should the Congress retain the basic framework of the existing Price-Anderson Act, under which all such issues regarding contractor liability are addressed in the context of an indemnification agreement with the contractor(s) responsible for carrying out those activities?

A.3.(A) Since the Price-Anderson Act has functioned smoothly since it was first adopted in 1957 and since even opponents of the Act have not seriously questioned the mechanics of the Act, there appears to be no reason for any conceptual change. While other arrangements (see Answer to Question 3.(B) below) may be equally effective, they possess no obvious advantages over the current Price-Anderson government contractor indemnity provisions, and accordingly no change appears to be necessary or desirable. Furthermore, the U.S. Supreme Court has upheld the constitutionality of Price-Anderson [although that case involved Section 170(c) of the Act, the rationale of the decision would be equally applicable to Section 170(d)] and any radical change in the format of the Act would probably introduce new constitutional questions and perhaps lower the public's confidence that the Act will achieve its intended purpose.

3.(B) Should the Department of Energy, as opposed to the contractors, be directly liable for actions that it takes involving nuclear waste transportation, storage, and disposal? If so, under what terms and conditions? What changes, if any, would you recommend in the Federal Tort Claims Act--the Act that currently governs the liability of the Department of Energy for such activities?

A.3.(B) No good reason is apparent for treating the handling of nuclear waste differently from the treatment accorded other Government nuclear activities and such different treatment would require an extensive and probably controversial review of other federal statutes such as the Federal Tort Claims Act. Timely extension of Price-Anderson, with a resultant negative impact on D.O.E. nuclear planning, would be jeopardized if it became necessary to publicly debate the details of the Federal Tort Claims Act, including the unavailability of trial by jury, relatively short Statute of Limitations, etc. While most contractors' lawyers would undoubtedly prefer that the contractors be totally relieved of liability rather than having to depend on the Government indemnity, the desire for prompt renewal of Price-Anderson outweighs those considerations.

3.(C) Where should the funds to pay public liability claims from an accident involving nuclear waste transportation, storage, or disposal come from? What mechanism should be established for ensuring prompt payment of any public liability claims? Should the Congress appropriate funds in advance of an accident, so that a source of funds is readily available when such claims are made?

A.3.(C) Since by law the Government takes title to the nuclear waste at the nuclear power plant, there would seem to be no good reason for the source of indemnity funds to be any different from the source of the indemnity funds for any other Governmental activity. If public policy reasons indicate another source, the immediate availability of some funds should be assured by the statute, although the amount of funds which should be made immediately available is highly speculative. It must be kept in mind that most of the serious bodily injuries which can be expected from any serious nuclear incident will be cancer, which has a long incubation period, so that most of the claims under the indemnity will not arise until many years after the occurrence of the incident.

3.(D) What standard of care should be adopted for determining liability for nuclear waste transportation, storage and disposal activities? Should that standard be imposed by the federal government, or should the states be allowed the flexibility to adopt whatever standard they deem appropriate?

A.3.(D) Since the United States will be the real party in interest and since the Government, as the sovereign, can be sued only on those legal grounds it permits by law, history and public policy would seem to dictate that the standard of care to be adopted for determining liability for nuclear waste activities should be established by the federal government. However, this may not be a particularly important item, since if, as we have recommended above, the extraordinary nuclear occurrence concept is specifically applied to nuclear waste activities, the standard of care issue will never be at issue in the event of a serious nuclear incident involving nuclear waste, since only causation and damages, not culpability, will be at issue.

TESTIMONY OF
JIM JONES
ATTORNEY GENERAL
STATE OF IDAHO
BEFORE THE
SUBCOMMITTEE ON NUCLEAR REGULATION
OF THE
COMMITTEE OF ENVIRONMENT AND PUBLIC WORKS
U.S. SENATE

OCTOBER 22, 1985

Chairman Simpson, other members of the Subcommittee:

I am Jim Jones, Idaho Attorney General. I am here today representing the views of the National Association of Attorneys General and its Energy Committee, of which I am the chairman. With me is Attorney General Edwin Pittman of Mississippi. He is chairman of the National Association's Subcommittee on High-level Nuclear Waste. He will make his own statement.

The NAAG Energy Committee began consideration of congressional extension of the Price-Anderson Act at its winter meeting in Austin, Texas. Since then, we have received a resolution from Attorney General Pittman's Subcommittee on High-level Nuclear Waste regarding the nuclear waste program issues being discussed in connection with congressional extension of the Price-Anderson Act. The NAAG Energy Committee approved that resolution, as did the plenary session of the Association at its meeting in Colorado Springs last week (July 18, 1985). That resolution is attached to my testimony. I will address it in a few moments.

My interest in this issue is generated because of my chairmanship of the NAAG Energy Committee, but also because Idaho is a state through which high-level nuclear waste will be transported. I do not regard myself as an alarmist about the safety of nuclear power or the transportation of nuclear materials. The issue before us today is purely a legal issue of attributing the liability for the federal government's nuclear waste program in advance of the program's activities and before any injuries occur.

Why is it a good reason to do this? The Nuclear Waste Policy Act, in section 123, provides that title to high-level nuclear waste will transfer to the federal government, specifically to the Secretary of the Department of Energy. The nuclear waste program set up by the Policy Act (and, incidently, the Waste Isolation Pilot Program in New Mexico) places complete control over those programs and over the waste involved, in the Department of Energy. Standard principles of common law tort would make DOE liable for its own acts, and by theory of respondeat superior, for the acts of its contractors. Yet recovery against DOE under present law would be frustrated by the Federal Tort Claims Act and the sovereign immunity of the federal government. Even if it was clear under present law that Price-Anderson addressed the nuclear waste program, an injured person could not seek recovery because of DOE-caused injury because Price-Anderson only allows actions against DOE contractors or NRC licensees, not DOE itself.

The nuclear waste program is one which DOE will operate in a purely proprietary capacity. There is no governmental function involved. There is absolutely no reason why the federal government should not be as liable as any other party which holds title to and has complete control of an ultra-hazardous material such as high-level nuclear waste. The fact that DOE has declined to agree to this extent of liability in its negotiations with Washington state serves to suggest to the public that the DOE would not readily accept its responsibility, under the common law, for injuries arising from the nuclear waste program. Nothing could be more counterproductive to public acceptance of the federal government's ability to successfully accomplish the program required by the Nuclear Waste Policy Act. In fact, the most productive contribution which Congress could make to the public's acceptance of that program would be a clear statement that the federal government intended to be liable for any injuries arising from that program.

The resolution passed by the National Association of Attorneys General at its recent meeting resolves that Congress "enact legislation defining the liability of the United States Department of Energy in connection with the high-level and transuranic nuclear waste programs. . . ." The principle of strict liability of the United States as a matter of law for the nuclear waste programs should be established by statute. States or municipalities should be held harmless from liability in connection with the federal government's nuclear waste program. States should be able to make claims for losses to the public health, environment, or economic well being due to the failure of nuclear waste facilities to isolate radionucleids. All actual damages should be compensated without limit on the liability of the United States. In summary, the resolution proposes strict, unlimited liability of the federal government for all injuries arising from the nuclear waste program. The basic principle should be stated clearly in any legislation enacted by the Congress on this subject.

Section 170(d) of the Price-Anderson Act currently limits the potential recovery against DOE contractors to $500,000,000 through a system in which the federal government agrees to indemnify all DOE contractors to that extent. This indemnification process developed because of the similar indemnification concept utilized under section 170(c) of the Act, the purpose of which was to provide incentive to the nuclear utility industry (NRC licensees) to develop that industry. The indemnification system is not, however, in my opinion, the best system with which to deal with injuries arising from the nuclear waste program or any other program which is as saturated with such a great degree of federal involvement. Title to the nuclear material is federal. Operation of the program is federal. Selection and supervision of DOE contractors is federal. None of the federal activity is governmental in nature. There is no policy reason to continue to utilize an injury compensation system which was designed for an entirely different purpose when a more direct and equitable system is available. That direct system is, of course, the statutory declaration of the federal government's liability for any injuries arising from its nuclear waste program.

One major defect of the indemnification process, currently utilized under section 170(d) of the Price-Anderson Act, is that it brings into play the substantive tort law of each of the state jurisdictions in which a claim may be made. Though each state may legislatively or judicially determine that radioactive materials are ultrahazardous materials and that, therefore, strict liability applies under the law of that state, the liability of the federal government cannot be declared by state legislatures or courts. It is incumbent upon the Congress to make that statement.

It is my opinion that the enactment of statutory liability for injuries arising from the Nuclear Waste Program would have no bearing on the process established for the assertion of claims for the tortious conduct of the federal government under the Federal Tort Claims Act. Congress should, in addition to stating federal liability, create a claim compensation process which may be elected in lieu of the Federal Tort Claims Act, leaving the election of remedies to the claimant.

I thank the committee for the opportunity to provide testimony on this important issue. It is an issue which the National Association of Attorneys General and its Energy Committee will continue to monitor. If we can be helpful in evaluating specific legislative proposals in the future, we would be pleased to do so.

I would be pleased to answer any questions.

Adopted by: Energy Committee

RESOLUTION

IX

AMENDMENT OF THE PRICE-ANDERSON ACT

WHEREAS, the Congress of the United States enacted the Nuclear Waste Policy Act, Public Law 97-425, and determined therein that "the Federal Government has the responsibility to provide for the permanent disposal of high-level radioactive waste and such spent nuclear fuel as may be disposed of in order to protect the public health and safety and the environment"; and

WHEREAS, the United States Department of Energy, pursuant to the Nuclear Waste Policy Act, has identified sites within several states at which high-level nuclear waste repositories may be developed; and

WHEREAS, the United States Department of Energy, pursuant to the Nuclear Waste Policy Act, will identify several locations in several states at which a second high-level nuclear waste repository may be developed; and

WHEREAS, the United States Department of Energy, pursuant to the Nuclear Waste Policy Act, will receive title to high-level nuclear waste and spent fuel at the reactor and will transport such waste and spent fuel, primarily by contractor, through many states; and

WHEREAS, the acts of the Department of Energy, its employees or contractors may result in accidents causing injury to or loss of property, personal injury or death, or damage to the public health, environment, or economic well being; and substantial expenditure of state and local funds for emergency response, clean-up, etc; and

WHEREAS, it is not possible at this time to actuarially determine the extent of loss which may occur from such potential accidents; and

WHEREAS, the Congress is now considering amendments to the Price-Anderson Act, an act dealing with the liability of various parties in connection with the operation of nuclear facilities;

NOW, THEREFORE, BE IT RESOLVED, that the National Association of Attorneys General urges the Congress to enact legislation defining the liability of the United States Department of Energy in connection with the high-level radioactive waste, spent nuclear fuel, and transuranic waste program authorized by the Nuclear Waste Policy Act during its consideration of amendments to the Price-Anderson Act; and

BE IT FURTHER RESOLVED, that the following principles be incorporated in such legislation:

1. Acts of DOE contractors in the high-level radioactive waste, spent nuclear fuel, and transuranic waste program which result in accidents causing injury to

or loss of property or personal injury or death, create strict liability in the United States as a matter of law.

2. Acts of DOE in the high-level radioactive waste, spent nuclear fuel, and transuranic waste program which result in accidents causing injury to or loss of property or personal injury or death create strict liability in the United States as a matter of law.

3. Acts of other governmental entities, e.g. states, affected Indian tribes, counties, and municipalities, which result in injury to or loss of property, or personal injury or death create strict liability in the United States as a matter of law, with the State or municipality held harmless.

4. Acts of DOE and/or its contractors in the radioactive waste, spend nuclear fuel, and transuranic waste program which result in loss to the public health, environment or economic well-being due to the failure of any activity or facility authorized by Public Law 97-425 or Public Law 96-164, Sec. 213 (Waste Isolation Pilot Program authority) to isolate radionuclides contained in high-level radioactive waste, spend nuclear fuel, and transuranic waste from the general environment create strict liability in the United States as a matter of law. Claims for such loss may be made by the state in which loss occurs on behalf or the citizens and environment therein.

5. All actual damages should be compensated, with no limit on the liability of the United States.

BE IT FURTHER RESOLVED, that the National Association of Attorneys General authorizes its Executive Director and General Counsel to transmit copies of this resolution to the Congress, the Administration, and other interested parties.

STATEMENT OF EDWIN LLOYD PITTMAN
ATTORNEY GENERAL FOR THE STATE OF MISSISSIPPI

Before The

SUBCOMMITTEE ON NUCLEAR REGULATION
COMMITTEE ON ENVIRONMENT AND PUBLIC WORKS

UNITED STATES SENATE

October 22, 1985

MR. CHAIRMAN, thank you for the opportunity to participate in this hearing on the reauthorization of the Price-Anderson Act. I am making my presentation as Chairman of the Subcommittee on High-Level Radioactive Waste of the Committee on Energy of the National Association of Attorneys General and on behalf of the Attorney General's Office and the Department of Energy and Transportation of the State of Mississippi. My comments will be directed toward the indemnification of the nation's high-level nuclear waste disposal program.

The National Association of Attorneys General Subcommittee on High-Level Radioactive Waste has met and discussed the Price-Anderson Act provisions and their relationship to the nuclear waste program on several occasions. Our examination and review of the Price-Anderson Act and the nuclear waste program has led us to the conclusion that the nuclear waste program is simply different from the commercial reactor program and other federal contractor programs and thus the liability coverage for each should be different.

Under the Nuclear Waste Policy Act, high-level radioactive waste and spent nuclear fuel are the property of the federal government. The nuclear industry is far removed from the transportation, handling, and siting decisions that are being made by the Department of Energy, Nuclear Regulatory Commission, and Environmental Protection Agency. The nuclear waste repository program receives extensive federal supervision at every stage of the process and operates under federal direction and control. Therefore, the federal government should and must assume all liability for claims resulting from nuclear waste disposal activities.

The liability cap, which may be expanded by some amount but is still a cap, has become one of the major roadblocks threatening to completely sidetrack any efforts of the federal government in the site selection process to negotiate agreements with the affected states. The risk of a nuclear waste incident resulting in substantial damages is ever present in the minds of rightfully concerned citizens and has been and will be a driving force in any negotiations on nuclear waste. It is inconsistent for the federal government not to accept total liability when the government is taking title to high-level radioactive waste and spent nuclear fuel, managing its storage and disposal, and selecting and siting permanent repository sites.

The ultimate responsibility is in the hands of the federal government. Therefore, the federal government should and must afford full compensation to parties injured as a result of the federal nuclear waste repository program. There should be absolutely no limitation on the scope of federal liability or the amount of federal compensation available for a nuclear waste incident consistent with fairness to all parties.

The creation of strict liability in the United States as a matter of law is the basis for the resolution passed by the National Association of Attorneys General which is presented here today. Congress may choose to retain the basic framework of the existing Price-Anderson Act for the purposes of the commercial reactor program. For the purposes of the nuclear waste program we believe that Congress should provide that a state or its citizens must only look to the United States for liability coverage. If total, absolute and exclusive liability coverage is provided for the nuclear waste program either as separate legislation or as a specific amendment to the Price-Anderson Act, then for nuclear waste purposes no changes are necessary in the Federal Tort Claims Act; no standard of care needs to be defined and adopted; and the definition of extraordinary nuclear occurrence does not need to be altered.

Our Resolution urges Congress to enact legislation which provides the following:

- Acts of DOE and/or DOE contractors in the nuclear waste program which result in accidents causing injury or loss of property or personal injury or death, create strict liability in the United States as a matter of law.
- Acts of other governmental entities, such as states, affected Indian Tribes, counties, and municipalities, which result in injury to or loss of property, or personal injury or death create strict liability in the United States as a matter of law.
- Acts of DOE and/or its contractors which result in loss to the public health, environment, or economic well-being due to the failure of any activity or facility in the Nation's nuclear waste program create strict liability in the United States as a matter of law. Claims for any loss should be allowed to be made by the state in which the loss occurs on behalf of the citizens and environment therein.
- All actual damages should be compensated with no limit on the liability of the United States.

The bottom line for the nuclear waste program is that title to the waste is in the federal government and with title goes the liability responsibilities associated with that title. When the first round repository states, of which there are six, are added to the second round repository states, of which there are seventeen, and to this is added all of those so-called "corridor states" through which nuclear waste will be transported under the management and supervision of the federal government, the forty-eight states could be affected in some way by the nuclear waste program. If nuclear waste comes to or through Mississippi, or any other state, the people of Mississippi or that state need to be and should be protected by the federal government.

I hereby submit for the record a copy of the National Association of Attorneys General Resolution regarding amendment of the Price-Anderson Act. I'll be happy to try to answer any questions you may have.

STATEMENT BY
STATE SENATOR JOE STROHL,
CHAIRPERSON, WISCONSIN RADIOACTIVE WASTE REVIEW BOARD
BEFORE THE
SUBCOMMITTEE ON NUCLEAR REGULATION,
COMMITTEE ON ENVIRONMENT AND PUBLIC WORKS,
U. S. SENATE

CONCERNING REAUTHORIZATION OF
THE PRICE-ANDERSON ACT

OCTOBER 22, 1985

Mr. Chairman, thank you for the opportunity to appear today concerning reauthorization of the Price-Anderson Act. Today, I am appearing on behalf of Governor Tony Earl and the Wisconsin Radioactive Waste Review Board. The State of Wisconsin and its citizens are vitally concerned about nuclear accident liability and, as such, we are most interested in the current proposals to reauthorize the Price-Anderson Act.

We hold this concern because we are a major nuclear state. Four commercial power reactors are located in Wisconsin, and another four are located along our borders in Minnesota and Illinois. Five of these reactors are sited along the shore of Lake Michigan, and three are along the Mississippi River. More than 150,000 Wisconsin residents live within the 10-mile evacuation planning zones around these eight reactors. More than 2,800 spent nuclear fuel assemblies, containing more than 1,100 metric tons of uranium, currently reside in storage pools at these eight reactors. By 1998, the year in which the U. S. Department of Energy (DOE) must begin accepting title, the amount of spent fuel from these reactors is expected to reach about 6,870 assemblies, or about 3,380 metric tons.

During the past three years, there have been more than 220 truck shipments of spent fuel through the southeastern corner of our state, an area with more than 1.5 million residents. The western side of our state, along the Mississippi River, is a major corridor for commercial spent fuel shipments to and from other states. More than 100,000 Wisconsin citizens live within a few miles of the rail route currently being used for one of the largest commercial spent fuel shipping campaigns in the history of the industry, and the same route may be heavily used in the future for shipments to and from a Monitored Retrievable Storage (MRS) facility, and to one or both geologic repositories.

As one of seventeen states being considered for the second geologic repository, Wisconsin believes that Price-Anderson must be revised to specifically address liability for accidents resulting from DOE activities implementing the Nuclear Waste Policy Act (NWPA). DOE currently plans to designate candidate areas and/or potentially acceptable sites for the second repository by the end of this year. Wisconsin, like other potential repository host states, believes that the Federal Government must assume full liability for any accidents resulting from transportation to a repository, accidents resulting from repository operations, and accidents resulting from system failure after closure of the repository.

GENERAL PRINCIPLES FOR REAUTHORIZATION OF THE PRICE-ANDERSON ACT

Liability for Commercial Power Reactor Accidents

The mathematical probability of a severe accident at any given reactor, in any given year, is low, but the overall probability of a severe accident over the next two decades with more than 100 reactors in operation is not negligible. In response to an inquiry from Representative Edward Markey, Nuclear Regulatory Commission (NRC) staff estimated in April, 1985, that the cumulative probability of a severe reactor core melt accident by the year 2000 may be as high as 45 percent. The potential economic consequences of a severe reactor accident have been documented by other NRC reports. In an accident involving severe direct breach of containment, direct off-site losses could exceed $10 billion (NUREG/CR-2723). Such estimates do not reflect the full economic cost if major water resources such as the Mississippi River or Lake Michigan were actually contaminated by an accident, or if precautionary evacuations and water use restrictions were required.

In our opinion, national policy regarding liability for commercial power reactor accidents should be based upon the principles of full and timely compensation for injured parties and full reimbursement for federal, state and local government expenditures.

We agree with the view expressed recently by NRC Chairman Nunzio Palladino, that "the Price-Anderson Act should be modified to minimize both the potential for uncompensated losses by victims of a commercial nuclear power plant accident and the need for additional financial contributions by the Federal Government to meet public liability claims." We believe that this end can best be met by revising Price-Anderson along the lines originally recommended by the NRC in 1983. The key NRC recommendation called for Congress to substitute an annual limitation on liability for the present absolute limitation, and raise the maximum retrospective premium to $10 million per reactor per year for each incident. The annual retrospective premium payments would continue until all public liability claims from an accident were paid. We support the original NRC position for the following reasons:

1. It provides for full compensation of victims in a timely manner;
2. The funding mechanism is equitable and unambiguous; and
3. The pysical burdens upon the nuclear utilities would be predictable and reasonable even in the event of a severe accident.

In addition, we urge the Congress to adopt the following principles in revising and reauthorizing the Price-Anderson Act:

** All costs of precautionary emergency response procedures incurred by state and local governments, should be covered, but should be considered secondary to direct victim compensation.

** The time period for filing of damage claims should be five years from the point of discovery.

** The amount of private insurance required for each licensee shall not be decreased after a nuclear accident requiring outlays by the insurer.

** Required coverage for commercial power reactors shall include any mothball period prior to final discommissioning, although the level of insurance required may be reduced based on the potential accident risk proposed by the facility.

Liability for Accidents Arising from DOE Activities Under the NWPA

The potential risk of accidents at a Federal MRS facility or geologic repository is largely unknown at this time. Postulated accidents range from relatively minor release of radiation during packaging and handling operations to large-scale contamination of ground-water resources. We know of no reliable technical studies upon which an upper limit on potential economic damages could be based. The potential risk from transportation activities under NWPA could be considerably greater than from current licensee shipments, because of the anticipated dramatic increase in the number of shipments once the first geologic repository is in operation. Under current plans, the amount of spent fuel received at the repository each year would be almost as great as the total amount of commercial spent fuel shipped during the past three decades. Studies by the NRC and others estimate that a severe transportation accident could result in damage claims ranging from a few hundred millions of dollars up to several billions of dollars, depending upon the circumstances.

The potential risk of accidents arising from the Department's transportation, storage and disposal activities under the NWPA has become a major issue in the process of selecting sites for the MRS and the first and second repositories. State and local officials, and the public at large, are concerned both about the potential for accidents and about the legal uncertainties regarding liability for accidents. In the opinion of most state legal experts, Price-Anderson as currently written does not explicitly apply to repository accidents. Meanwhile, during negotiations with potential repository host states, DOE has refused to assume full liability for repository accidents, citing the liability limitations embodied in Price-Anderson.

In our opinion, national policy regarding liability for accidents arising under DOE activities implementing the NWPA should be based on the principles of full compensation for damages, full direct liability by the Federal Government regardless of contractor involvement in an accident, and payment of damages from the Waste Fund created by the NWPA. The Congress should create an entirely new section of Price-Anderson applying to DOE activities required under the NWPA. It is absolutely essential that that new section commit the Federal Government to fully and timely compensation. Acceptance of a Federal MRS facility or a geologic repository will entail considerable state and local sacrifice on behalf of the national interest. Equity requires that the Federal Government at least guarantee that the victims of any accidents resulting from nuclear waste management activities are fully compensated. The federal assumption of liability must also be direct and full, regardless of contractor involvement or negligence. And the Federal Government must hold state, local and tribal governments and officials harmless from any damage claims arising from such accidents.

The Waste Fund created by the NWPA is the appropriate source of payment for any accident claims resulting from DOE activities involving commercial spent fuel and high-level waste. If sufficient funds are not available in the Waste Fund, then DOE should borrow funds for this purpose from the Federal Treasury, repaying the Treasury from future Waste Fund receipts.

In addition, we urge the Congress to adopt the following principles in revising and reauthorizing the Price-Anderson:

** The time period for filing damage claims should be five years from the point of discovery.

** Damage claims resulting from a theft or sabotage incident should be explicitly included, regardless of whether such an act occurs at a federal or contractor controlled site, during transportation, or after a successful diversion of radioactive material.

** Damage claims may be filed by individuals, states and their subdivisions, and by Indian tribes. States and tribes should be empowered to file damage claims on behalf of their citizens.

Liability for Transportation Accidents

In order to ensure the financial viability of the entire Price-Anderson system, we believe that additional amendments to the Atomic Energy Act are required regarding transportation of radioactive materials, especially commercial spent fuel, by NRC licensees. Senator William Proxmire of Wisconsin will soon be introducing legislation to address these concerns.

As with potential reactor accidents, the probability of a severe transportation accident is low, but the potential consequences are high. The statistical potential for severe transportation accidents will increase as the number of shipments and miles traveled increases. Licensee shipments have become more frequent recently, as witnessed by the Monticello and Cooper Station shipments to Morris, Illinois, and are expected to grow over the next decade as reactors with limited on-site storage ship spent fuel to federal or commercial away from reactor (AFR) facilities, or to other reactor storage pools. Shipments of spent fuel will increase dramatically in the late 1990's, when the first repository and MRS facility begin operations. Several NRC studies have concluded that the damage claims following a severe transportation accident could be extensive. The NRC's final environmental statement on transportation of radioactive materials (NUREG-0170), published in 1977, estimated damages at $400 million (1975 dollars) in an urban area, and up to $10 million in a rural area, following a severe accident. A more recent NRC study (NUREG-0743) concluded the damages in an urban area could exceed $2 billion following a "worst case" transportation incident. These cost estimates, however, do not include the full range of potential expenses, such as medical expenses, nor do these estimates reflect full "worst case" assumptions about the location and conditions of an incident, such as collision with another hazardous cargo like propane, unusually adverse weather conditions, traffic congestion, crowd control problems, and so forth.

In our opinion, national policy regarding liability for transportation accidents should be based on the same principles of full and timely compensation for injured parties as for reactor accidents, and upon the principle of maximum risk reduction. Liability for commercial transportation accidents should be covered by the same private insurance and retrospective premium requirements as for commercial power reactors. Accidents involving DOE shipments under the NWPA would be treated separately.

A sound risk management approach to nuclear accident liability requires more than simply reauthorizing Price-Anderson with higher indemnification requirements than at present. Since both commercial reactor and transportation accident claims must be paid from the same financial base, we believe the Congress should require the same strict risk reduction measures for transportation as for fixed facilities, in order to protect the overall financial viability of the retrospective payment system. Current NRC regulations for commercial power plants allow a need determination by the appropriate state authority, require a full Environmental

Impact Statement prior to licensing, and require development of emergency response plans and periodic exercises to insure public safety. In contrast, there are no federal regulations requiring determination of need for spent fuel shipments; the only federal regulations regarding route selection (physical safeguards and highway routing rules) ignore route-specific environmental impacts; and there are no federal requirements for route-specific emergency response planning and exercises. These regulatory gaps, coupled with purported federal preemption of state transportation and environmental regulations, and inadequate enforcement of federal inspection requirements, have a direct impact on the larger issue of·accident liability.

We urge the Congress to enact the following risk management measures:

1. Any NRC licensee proposing to ship spent nuclear fuel or high-level radioactive waste off-site must first receive specific approval from the NRC for the proposed shipments(s) and proposed route(s).
2. Prior to approving a licensee request for approval to ship spent fuel or high-level radioactive waste off-site, the NRC must:
   - A. Determine that there is a need for the proposed shipments, applying the same criteria which the NRC has already adopted for determination of need for access to Federal Interim Storage facilities;
   - B. Prepare an environmental assessment, in consultation with the affected states and tribes and the shipper, of the proposed route(s) of the shipment(s); and
   - C. Receive an approved emergency response plan prepared by the shipper in consultation with affected state, local, and tribal officials, for potential transportation incidents along the proposed route(s) (such plan to include periodic exercises).

We believe the Price-Anderson Act must also be amended to specifically extend liability coverage to transportation incidents involving theft, diversion, or sabotage. As currently written, the indemnification provisions do not apply if nuclear materials in transit are stolen, diverted, or sabotaged in any manner. Due to the extremely hazardous nature of spent fuel and other radioactive materials, the potential exsits for intentional as well as accidental disruption of spent fuel shipments.

Comments on S.1225

S.1225 would improve the current Price-Anderson Act provisions for nuclear accident liability by increasing the limit on accident liability for all types of nuclear accidents, and by explicitly including accidents resulting from DOE's activities to implement the NWPA. We cannot, however, support S.1225 as it is currently drafted.

First, S.1225 does not provide for full compensation for nuclear accident victims. The bill limits compensation to between $1.64 billion and $2.43 billion, depending upon how many reactors are eventually licensed to operate, and on whether the retrospective premium is set at $10 million or $15 million. Any additional claims would be paid only following additional congressional action, which S.1225 cannot guarantee.

Second, S.1225 would place the financial burden of accident liability for commercial power reactor and commercial spent fuel transportation accident claims above a certain limit on utility rate payers, the Federal Gvoernment, and ultimately taxpayers, rather than on the nuclear industry, where we believe the burden for such liability rightly belongs. Under S.1225, the first $200 million in claims would be covered by private insurance; the next $1.725 billion, assuming 115 reactors and a retrospective premium of $15 million per reactor, would be paid by the nuclear utilities; and the next $500million would be paid by utility rate payers through a one mill per kilowatt-hour tax. Any claims greater than $2.425

billion, would be passed onto the Federal Government and ultimately to taxpayers, in the event that the Congress acted as anticipated by S.1225.

10-18-85
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Testimony of Senator Al Williams, Chairman
Washington State Energy and Utilities Committee
Before the Senate Subcommittee on Nuclear Regulation of
the Senate Environment and Public Works Committee

October 22, 1985

Thank you for the opportunity to present testimony on the issue of liability coverage for accidents involving nuclear materials and for potential spills of high-level nuclear waste. I understand the subcommittee will consider at least two bills on the subject, namely: S. 1225, sponsored by Senator Simpson and S. 445 sponsored by Senator Hart.

My remarks today will be limited to liability coverage as it relates to the high-level radioactive waste activities conducted under the Nuclear Waste Policy Act (NWPA) passed by Congress in 1982. The question of liability for nuclear accidents occurring at disposal sites or in the transportation of wastes to or from such sites was not addressed in the Policy Act. The only reference to the liability question is found in the legislative history of the NWPA which notes that the question of liability and possible coverage under the Price Anderson Act was to have been examined in light of the NWPA. However, such an examination failed to occur and the NWPA remains silent with respect to the liability issue.

The federal government, through its agent the Department of Energy, maintains that any liability under the NWPA is governed by (1) the Federal Tort Claims Act if the government operates a site or transports waste for disposal, or (2) the Price Anderson Act if the government engages private contractors to operate the site or transport waste for disposal. A number of states, including Washington, disagree with the position put forth by the government with respect to Price Anderson Act coverage. These states contend that because the NWPA is silent with respect to liability and because of the national interest inherent in a disposal program, the federal government should be absolutely liable and indemnify a state for any damage suffered by it or the public due to the construction or operation of a disposal facility within the state, as well as any damages incurred in the transportation of waste to or from such a facility.

I, too, believe the federal government should assume full liability for any injuries or damages that are incurred because of the operation of the high-level radioactive waste program under the NWPA. Consequently, I find the full liability coverage offered by S. 445 to be more satisfactory than the liability limit of approximately $2.4 billion provided in S. 1225. I do not favor a cap on the government's liability for nuclear accidents incurred because of the program authorized by the NWPA for the following reasons. First, in spite of repeated requests by the State of Washington dating back to the spring of 1984, the Department of Energy to date has failed to issue a socio-economic risk analysis upon which a reasonable figure for a liability limit could be based. Without such an analysis it appears unwise to arbitrarily select a limit on liability which is not substantiated. Second, it has been reported that the Department of Energy believes that an accident at a repository would result in much lower liability than that predicted for an accident at a reactor. If this is true, then why does the Department maintain the need for a limitation on liability for the repository program? Clearly the Department has failed to build a convincing case as to the need for a limitation of the government's liability with respect to program operations under the NWPA.

Now, I would like to take a few minutes to discuss a proposal which is being suggested by the States of Washington, Nevada and Texas with respect to the liability of the federal government for high-level radioactive waste activities. The proposal contains four major components which I will briefly outline for you. First, the federal government is strictly liable for any injury or damage resulting from the government's activities under the NWPA and the Waste Isolation Pilot Plan (WIPP). Second, the public is entitled to full compensation for any actual loss or injury. Third, the payment of claims requires a simple and expeditious procedure. Fourth, the states and Indian tribes should be held harmless by the federal government for liability incurred because of the NWPA or the WIPP.

I believe this proposal is a sound and fair response to the complex issues surrounding the liability question. I would urge your consideration of the proposal or at least the four points I have outlined for you.

To conclude, it is my opinion that the federal government should assume unlimited and strict liability for accidents related to the high-level radioactive waste program because of the benefit to the entire nation that will result from such a program. The NWPA is a federal solution to the national problem of disposal of high-level radioactive waste. At the very least, the federal government should assume full liability for its own program and not expect the citizens of the state where an accident occurs to shoulder the financial burden caused by limited liability.

I cannot over-emphasize the need for some legislation which is responsive to the question of the government's liability for accidents incurred because of the high-level radioactive waste program operated under the NWPA. One of the public's greatest concerns with the repository program is the possibility of injury or damage caused by an accidental release of radioactive materials. Legislation which would assure the public of full compensation for any harm incurred because of an accident would go a long way toward instilling public confidence in the program.

Thank you again for the opportunity to present testimony on the liability issue. I would be pleased to answer any questions that you may have.

ER:dc10-15

STATEMENT OF

JAMES H. DAVENPORT

SPECIAL DEPUTY ATTORNEY GENERAL

STATE OF NEVADA

Before the Committee on Environment and Public Works

Subcommittee on Nuclear Regulation

United States Senate

October 22, 1985

I am James H. Davenport and appear before you today on behalf of the State of Nevada which I serve as Special Deputy Attorney General. I appear before you today at the request of Governor Richard Bryan and Attorney General Brian McKay. I also appear today on behalf of Senator Thomas Hickey of Nevada whose correspondence to the Committee is attached to my statement. Additionally, I have been requested to represent to the Committee that the Texas Governor's office joins in the position represented here.

As the subcommittee is aware, the State of Nevada is one in which a site exists which is very likely to be characterized for the development of a high-level nuclear waste repository, pursuant to the Nuclear Waste Policy Act, a legislative achievement in which this subcommittee participated. The likelihood that Yucca Mountain in Nevada could become a +repository site causes Governor Bryan, Attorney General McKay and the Nevada Legislature concern that the complete and final responsibility of the federal government for any injuries or accidents which might occur from the federal government's repository program be established in advance of site selection.

In negotiations with the State of Washington for a consultation and cooperation agreement last year, the Department of Energy declared that, without Congressional direction to the contrary, the maximum commitment of federal responsibility for the high-level nuclear waste repository program would be Department of Energy indemnification of DOE contractors, pursuant to the Price-Anderson Act. In other words, the maximum responsibility of the federal government would only be $500 million. Washington State, of course, declined to agree.

The Department of Energy should be statutorily liable for the injuries caused by accidents of its contractors in the high-level waste disposal program. This liability should be clearly declared as a matter of federal law. Similarly, DOE should be directly liable for injuries caused by its own accidents. Also, DOE should be liable for injury arising out of accidents caused by employees of other governmental entities, which would not have occurred _but for_ the DOE nuclear waste program. Victims should be fully compensated. A statutory scheme should be established to provide for payment of claims made directly to and paid directly by the U.S. DOE. State and local governments should be held harmless.

The law of tort liability is the common law of the respective state in which a tortious injury might occur. If a vehicle transporting hazardous, flammable or explosive materials, or conditions at a hazardous materials disposal site, caused injury and those materials were owned by a private corporation and under the control of its contractor, then the developing common law of most states would declare that the material's owner was strictly liable to the full extent of the injury because of the ultrahazardous materials involved. The Governor, Attorney General and Legislature of Nevada believe that the liability of the federal government for the transportation of high-level nuclear waste materials and the construction and operation of a high-level waste repository should be as extensive as the liability of any private corporation would be in the hazardous materials area. At the present time, were any person to sue the United States Department of Energy or its contractors for injury resulting from the use of an ultrahazardous material (high-level waste) the plaintiff would encounter the defense of Price-Anderson aggregate liability. It is not possible for the state to cure this problem through enactment of state legislation. The federal law defenses cannot be amended by state legislative action because of the supremacy of Congressional enactments. In this respect, the Department of Energy was right in its negotiations with Washington that it could not, without Congressional direction, do more than it proposed.

The enactment of federal legislation declaring the strict liability of the federal government for its high-level nuclear waste program would solve the dissimilarity of the liability structure between hazardous material operations generally and high-level nuclear waste materials in particular. It would also solve the dissimilarity of expectations on the part of the public that every person have the possibility of being made completely whole in the event of injury. Were it not for the government operation of this program, which is, after all, proprietary, and the limit on recovery imposed by the Price-Anderson Act, the liability structure for high-level nuclear waste materials would be the same as any other hazardous material.

It is important here to clarify some terminology generally misused in this discussion. "Indemnification" and "liability" are not the same thing. A limitation on liability is any defense which may be interposed to modify the legal duty of one person to another. The Price-Anderson Act declares that the "aggregate liability" of persons indemnified, in any single nuclear incident is $500 million together with the amount of financial protection required of the contractor. This creates a lid on the duty of one person to another as that duty would be evaluated under state tort law. It is questionable whether this aggregate liability limits the liability of the federal government, as the federal government may not be a person indemnified. In other words, full liability is the general rule and limitation on liability is the exception.

S. 1225 attempts to address the problem by increasing the amount of aggregate liability described by Price-Anderson, to make clear that Price-Anderson applies to high-level nuclear waste materials, and to create the legal fiction that where an injury occurs involving no Department of Energy contractor, the agency would itself be treated as though it were its own contractor, i.e. become a person indemnified. These are noble gestures at curing the discrepancy between a person's expectation that he be made whole in the event of a hazardous materials injury but be made only partially whole in the event of a nuclear waste materials injury. However, this approach merely builds off an already complicated statute, making a more complex legal framework for litigious plaintiffs' counsel to pursue.

S. 1761, Chairman Stafford's bill,, is better than S. 1225, as it regards nuclear waste facilities, because it mandates indemnification of DOE contractors to the full extent of claims. Because S. 1761, like S. 1225, creates the legal fiction that DOE would be regarded as its own contractor where there is otherwise none, a claimant would have a legal right to recover his full claim. Assuming that the legal fiction gives DOE the contractor's defenses only, the combination of S. 1761 and strict liability under state tort law would be legally equivalent to a declaration of federal strict liability.

It would be much more preferable, and Nevada advocates, that the Congress merely declare that the federal government would be strictly liable for injuries arising from the nuclear waste program and allow claims for injury to be made directly to the Department on an administrative basis. This would eliminate the complex legal questions in personal injury litigation and could also limit recovery to actual compensatory damages. A complete legislative proposal, incorporating these concepts, is attached to my testimony. Governor Bryan advocates its enactment.

It is unreasonable to assume that the public of any potential repository state will be prepared to accept that a high-level nuclear waste repository will be safe and that the environment and people of that state will be fully protected if the Congress does not have sufficient faith in the federal government's repository program to declare that the federal government will be the party with the legal responsibility to compensate for any damage to the public or environment within that state. A fair compensation system should not include the long delays, complex litigative process, and contingent fee systems which currently exist in personal injury litigation. S. 1225 and S. 1761 guarantee preservation of those undesirables.

Governor Bryan and Attorney General McKay certainly hope that no injuries ever will occur because of the federal government's nuclear waste program. The Congress obviously anticipated that there would be few or it would not have agreed that the federal government would and could operate the waste program. In the event that there are no or few injuries, a clear statement of liability costs the government nothing. There is no danger to the Treasury as long as DOE operates a responsible repository program, something Congress apparently believes DOE will even do pledging the full faith and credit of the Treasury would be meaningful to an already skeptical public in communicating Congress' confidence in DOE's nuclear waste program.

I would be happy to answer any questions which the Subcommittee may have.

STATE OF NEVADA
LEGISLATIVE COUNSEL BUREAU
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CAPITOL COMPLEX
CARSON CITY, NEVADA 89710

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July 17, 1985

The Honorable Alan K. Simpson
United States Senate
Chairman, Subcommittee on Nuclear Regulation
Senate Committee on the Environment and
Public Works
Hart Senate Office Building
Room 709
Washington, D.C. 20510

Dear Senator Simpson:

On behalf of the Nevada Legislature's Committee on High-Level Radioactive Waste, I would like to indicate our support for the Price Anderson Act Amendents which are being proposed by the potential repository states. We have carefully studied the issues relating to safety in the delivery and acceptance of high-level radioactive waste and find that the proposed amendment, as it pertains to complete federal liability, would serve the best interests of the public in the State of Nevada.

During its past session, the Nevada Legislature passed Assembly Joint Resolution No. 5 which urges the President and the Congress of the United States to ensure that the Federal Government assume total financial responsibility for mitigating all adverse impacts associated with preliminary study, construction, operation and eventual closure of a repository for high-level radioactive waste if the repository is located in Nevada. It also urges assumption of total liability by the Federal Government for injuries resulting from activities associated with the facility. A copy of A.J.R. 5 is attached.

For these reasons, we urge the passage of the Price Anderson Act Amendment.

Very truly yours,

Thomas J. Hickey

Thomas J. Hickey
Nevada State Senator

TJH:kjl:Letter16
Enc.

Assembly Joint Resolution No. 5—Committee on Natural Resources, Agriculture and Mining

FILE NUMBER.........

ASSEMBLY JOINT RESOLUTION—Urging the Federal Government to assume the total financial responsibility for the mitigation of all adverse effects of any facility for the disposal of high-level radioactive waste in this state.

WHEREAS, It is possible that Nevada will be chosen as the location of a national facility for the disposal of high-level radioactive waste; and

WHEREAS, This resolution is not intended as an expression of support for or opposition to the placement of such a facility in Nevada; and

WHEREAS, The merits of the issue aside, the construction and operation of the facility will have a significant effect upon the economy of this state; and

WHEREAS, Under the provisions of the Nuclear Waste Policy Act of 1982, 42 U.S.C. §§ 10101 to 10226, inclusive, the Federal Government is responsible for the safe and permanent disposal of high-level radioactive waste; now, therefore, be it

RESOLVED BY THE ASSEMBLY AND SENATE OF THE STATE OF NEVADA, JOINTLY, That this legislature strongly urges the President and the Congress of the United States to use their power to ensure that the Federal Government:

1. Bears the total financial responsibility for the mitigation of all adverse effects associated with the preliminary study, construction, operation and eventual closure of any such facility as soon as an injury is perceived;
2. Requires all materials and equipment for the facility to be purchased, if possible, in Nevada and subject to state and local sales and use taxes; and
3. Assumes all liability, without limitation, for any injuries resulting from the transportation of high-level radioactive waste to the facility, the construction, operation and eventual closure of the facility and any activity associated with the facility after its closure; and be it further

RESOLVED, That the legislative counsel shall forthwith transmit copies of this resolution to the President of the United States, the Vice President of the United States as presiding officer of the Senate, the Speaker of the House of Representatives, each member of the Nevada congressional delegation and the Secretary of Energy; and be it further

RESOLVED, That this resolution becomes effective upon passage and approval.

TESTIMONY OF

BILL CLAUSEN
GOVERNOR'S NUCLEAR WASTE COUNCIL
STATE OF MINNESOTA

BEFORE

U.S. SENATE
SUBCOMMITTEE ON NUCLEAR REGULATION
COMMITTEE ON ENVIRONMENT AND PUBLIC WORKS

October 22, 1985

Mr. Chairman and members of the Subcommittee:

My name is Bill Clausen and I am here today representing the State of Minnesota. I want to thank you for providing the states and tribes with the opportunity to discuss the issue of nuclear liability and the reauthorization of the Price-Anderson Act.

Minnesota is keenly interested in Price-Anderson reauthorization. We are one of the states the DOE is investigating for the second of two high-level radioactive waste repositories. Decisions on nuclear liability made now, in 1985, will affect Minnesota and its involvement with the DOE program for years to come.

I would like to begin by observing that the reauthorization of Price-Anderson is a matter of great concern to the potential host states, as well as to states which may find themselves in a nuclear waste transportation corridor. The shape of the new Price-Anderson Act, and what it says with respect to federal facilities and contractors, and nuclear waste handling, transportation, storage, and disposal, will send a powerful signal to the states on how far the federal government will go to ensure a safe, reliable nuclear waste management system.

There are three principles which we would like to see guide any federal plan for nuclear liability.

The first principle is that the Price-Anderson Act should explicitly extend liability coverage to all high-level radioactive waste program activities, including transportation, storage, handling and disposal.

Minnesota considers explicit coverage of nuclear waste management activities a precondition of reauthorization for several reasons. First, much has changed since the last update of Price-Anderson. The current version of the Act is simply too vague with respect to the nuclear waste program to inspire confidence. Although we have been assured that the DOE contractor indemnification provisions in the current law can be stretched to encompass most foreseeable nuclear waste related incidents, it is apparent that the status of DOE repository program liability under Price-Anderson is unclear. According to some observers, the best conclusion is that the current law does not cover the nuclear waste program. From the perspective of a state under consideration for a national repository, this uncertainty is unacceptable. It raises the prospect of confusion and delay in the recovery of damages by victims, with the possibility that injured parties with legitimate claims may go uncompensated.

We would also argue that explicit coverage is a necessary recognition of the importance of the waste issue and the potential for liability problems associated with nuclear waste management. We must be absolutely certain that waste activities are covered by a reliable compensation scheme. Nothing should be left to interpretation.

We are very pleased to see that the DOE supports the extension of Price-Anderson coverage to activities carried out under the waste program. DOE's endorsement is an important signal to the states that the Department is sensitive to states' concerns about liability. The fact that several reauthorization bills under consideration include this provision is also very encouraging.

In addition, it is important that states, tribes, and municipalities be held harmless as potentially liable parties in a nuclear waste incident. States can currently be covered under a DOE indemnification agreement, but there is no reason why this protection should not be extended to all affected states, tribes, and municipalities by statute.

A second principle is that the federal government should accept full responsibility for the consequences of its nuclear waste disposal program. In practice, this means that the cap on liability for federal facilities and contractors should be removed. Full compensation for victims is essential for public confidence in the repository program. Removing the limit is an opportunity for Congress to demonstrate its confidence in the DOE program, its commitment to a safe, reliable radioactive waste disposal system and its acceptance of full responsibility for the consequences.

Second, states which must accept a repository will serve a very important national purpose. As a matter of fairness, their citizens must not be asked to bear part of the cost of the nuclear waste program through personal illness and injury, loss of property, and loss of well-being. At a minimum, they will expect the federal government to provide full compensation for reasonable and legally valid claims.

Third, as a state which may one day negotiate a Consultation and Cooperation (C & C) Agreement with the DOE, we are disturbed by the inability of DOE and the State of Washington to successfully conclude their C & C negotiations because of conflicts over the extent of liability coverage. We are disturbed because the disagreement has proven to be a serious stumbling block to smooth federal-state relations. Through reauthorization, Congress has an opportunity to resolve conflicts over liability now, before the siting process continues any further, and allow the states and the DOE to focus on matters more directly related to the repository program when C & C negotiations begin.

Fourth, the Department of Energy must be able to recover damages from contractors whose negligence may have contributed to an accident. The requirement of full compensation is a powerful incentive for the DOE to oversee the safest and most reliable of nuclear waste disposal programs. The Department must have the tools to ensure that contractors also feel that incentive.

The third principle is that reauthorization of the Price-Anderson Act should provide a clear, understandable system for compensating victims, including provision for rapid recovery of damages.

First, a liability system should ensure that funds for victim compensation are available up front. One way of organizing this system is to establish an administrative mechanism for the distribution of damage awards.

Second, the source of funding for nuclear waste related incident claims under Price-Anderson must be adequate and must be clearly identified. Since the Nuclear Waste Fund is derived from beneficiaries of the nuclear waste disposal program, it seems to be the fairest source of compensation for nuclear waste program-related accidents, provided that there is a formula for prorating costs for defense wastes commingled in a repository. Additional funds for incidents in which claims exceed a particular level could come from the Treasury.

Third, precautionary evacuation and emergency response costs associated with the repository program should be covered by Price-Anderson.

Fourth, the statute of limitations during which victims of a nuclear incident may file damage claims under Price-Anderson should be extended from the current twenty years to a more reasonable period.

Conclusion

Reauthorization of the Price-Anderson Act on a ten year basis compells Congress to reconsider the system of financial protection for victims of nuclear accidents. It allows Congress to respond to changing conditions and adapt to emerging nuclear problems. With the passage of the Nuclear Waste Policy Act, nuclear waste disposal has become just such a problem and now is the time to address it.

With reauthorization, Congress has the opportunity to demonstrate its confidence in the nuclear waste program and its commitment to the safest and most reliable repository system. Congress can send a clear signal to the affected states, tribes, and citizens that the federal government will take full responsibility for the consequences of high-level radioactive waste disposal.

Thank you for the opportunity to testify.

Testimony of

MELVIN R. SAMPSON
VICE CHAIRMAN
YAKIMA TRIBAL COUNCIL

BEFORE THE

SUBCOMMITTEE ON NUCLEAR REGULATION

of the

SENATE COMMITTEE ON ENVIRONMENT AND PUBLIC WORKS

Hearing on Price-Anderson Act Extension

October 22, 1985

Mr. Chairman and Members of the Subcommittee:

My name is Melvin Sampson. I am Vice Chairman of the Tribal Council of the Confederated Tribes and Bands of the Yakima Indian Nation. I am also Chairman of the Tribal Council's Committee on Nuclear and Hazardous Wastes. I appreciate this opportunity to present the views of the Yakima Nation on the important issue of liability for nuclear activities.

Before engaging in a discussion of the Yakima Nation's preferences concerning liability and compensation for nuclear accidents, I must state at the outset that the primary assets of the tribe, other than our people, are the land and natural resources within and surrounding the Yakima Reservation which we have treaty-guaranteed rights to enjoy and use forever. Those resources are fundamental to the lifestyle, culture, and religious practices of the Yakima people. For the loss of those treaty-guaranteed rights, whether through nuclear mishap or any other cause, the Yakima people could never be compensated.

The Yakima Indian Reservation in Washington State is only about 13 miles from the Department of Energy's Hanford Site at the closest point. The Yakima Nation is one of three designated "affected Indian tribes" with respect to the potential Hanford candidate site for a high level radioactive waste repository under the Nuclear Waste Policy Act of 1982. The Yakima Nation has been deeply concerned and involved in the national radioactive waste disposal program since before the NWPA was passed. Consequently, we are very much interested in the issues of liability and compensation for damages as they relate to the waste disposal program.

However, the Yakimas' concerns about liability for nuclear activities are not limited to high-level waste disposal. There are many diverse nuclear activities taking place at the Hanford Site, including operation of a commercial nuclear plant by the Washington Public Power Supply System, operation of the nation's largest low-level waste disposal site, and operation by DOE of many facilities such as the N-reactor for production of weapons plutonium, the PUREX plant for extraction of that plutonium from the N-reactor spent fuel, nine out-of-use plutonium production reactors, the Fast Flux Test Facility for testing breeder reactor fuels, and numerous federal high and low level waste management activities on a very large scale. Many of these nuclear activities have already resulted in radioactive contamination of the environment and are continuing to do so.

Consequently, the concerns of the Yakima Nation extend to liability for harm which might be caused by any or all of these activities. In contrast to the approach taken in legislation such as H.R. 2524 and positions being taken by some of the states in this debate, we feel strongly that all federal nuclear activities should be given complete coverage with unlimited liability under Price-Anderson. We can see no reason why the commercial high-level waste disposal program alone should be singled out for special recognition in amendments you are considering to the Price-Anderson Act. The risk posed by the other activities is very substantial and in any case is occurring now and is thus much more immediate than that posed by the high-level waste program.

I shall now briefly discuss several of the specific issues which the Subcommittee is currently considering.

Liability Limit

Under present law, liability for accidents at commercial nuclear power plants and other licensed nuclear activities is limited to a total of about $630 million. Liability for damages caused by federal nuclear activities is limited to $500 million. These limits, which were enacted to encourage investment in the fledgling nuclear industry, are totally unfair to the potential victims of nuclear mishaps. Many studies have shown that the potential damages from a credible nuclear power plant accident could reach many times the limit, leaving victims only partially compensated for their losses, if at all.

We particularly note the unfairness of placing the burden on the locales of the various nuclear projects. In most cases these projects serve a multi-state if not a national interest. To place on the persons or property of those in the vicinity of these projects the risk of uncompensated damage is an unfair balancing of benefit and risks. Any limitation of compensation offends the policy, if not the letter, of the Constitution which provides that property interests should not be taken for a public use without just compensation.

The potential for damages from major failures in the waste management program are totally unknown and possibly unknowable. Who can say what it might cost to prevent seepage of highly contaminated groundwater from either deep geologic or shallow waste disposal facilities into the Columbia River? Who can say what it might cost to compensate those who rely on the River and the life it supports for the loss of their livelihood, their subsistence lifestyle, or practice of their religious beliefs, if the contamination in the River reached high levels? Moreover, injuries resulting from a waste repository failure could be ongoing for literally centuries.

The Treaty of 1855 between the Yakimas and the United States[1] guarantees to the Tribe in return for deeding over the majority of the Yakimas' lands that, among other things, the Yakimas retain the perpetual right to take fish from all usual and accustomed fishing places in the Columbia and Yakima Rivers. If accidents or failures at any of the nuclear facilities at Hanford--whether commercial or federal--result in serious contamination of the River, a fundamental part of that bargain, in which the United States received about one-fourth of the present State of Washington, will be destroyed. From our standpoint, there is no amount of money that could adequately compensate the Yakimas for that loss. However, even putting aside the immeasurable harm to our traditional way of life, the compensable losses alone would be enormous.

I do not believe that federal encouragement of nuclear power development at such a high cost to potential victims as is posed by the present liability limits was ever a legitimate policy goal of the federal government. The fact that those limits will remain in the indemnity agreements for all existing licensed nuclear plants no matter what Congress decides to do this year is in my view a major injustice. Congress should end this inequitable subsidy for plants that might be licensed in the future, and for contracts which DOE enters in the future for management of federal nuclear facilities, including but not limited to waste management facilities.

The Yakima Nation recommends that Price-Anderson be amended to provide unlimited liability for both licensed commercial and federal nuclear activities. Lifting of the liability limits would shift the risk burden for these activities from the potential victims to the industry and the government, respectively, where they legitimately belong. Moreover, it would provide powerful incentives for those engaged in nuclear activities to provide the level of care and safety which the risks of those activities calls for. Although it does not go far enough with respect to federal nuclear activities other than waste management, we support the bill recently introduced by Senator Stafford, S. 1761, in this regard.

Funding Sources

Funding unlimited liability, which might entail payments for decades or even centuries, is no small problem, but there are solutions available. For commercial reactors, for instance, we are in favor of the proposal which was put forward by the Nuclear Regulatory Commission in 1983, and which is essentially incorporated in S. 1761. That proposal would change the present law by eliminating the liability limit and replacing the present $5 million per reactor per accident retroactive assessment on nuclear utilities with a $10 million per reactor per year per accident assessment. This proposal has the important advantage that it would continue to provide additional funding for as long as is necessary following an accident. This consideration is very important in light of the long latency periods associated with many radiation-induced injuries.

For liability incurred in connection with the high-level waste disposal program, the Yakima Nation feels that the Nuclear Waste Trust Fund is the most appropriate source of compensation funds. The NWPA establishes a strong policy that the users of nuclear power should fund the full costs of the waste disposal program. Clearly the "full costs" of the program should be considered to include any costs resulting from accidents or failures. Of course, legislation should provide for appropriate contributions to the Trust Fund from the federal treasury to fairly cover the costs resulting from the federal component of the waste stream.

For other federal nuclear activities, such as defense, research, or nuclear fuel cycle facilities, it appears that the federal treasury is the appropriate source of funds. We can understand that Congress might not be eager to accept the fiscal implications of full and unlimited federal liability for its nuclear activities. Nevertheless, that is the only ethical course to take. Federal nuclear facilities are operated on behalf of the country as a whole. The victims of an accident at such a facility should be fully compensated for their losses by the country as a whole.

Extraordinary Nuclear Occurrences

The supposed trade-off for the public in return for the limitations on industry liability are the availability of a large pool of compensation funds and the requirement that defendants waive certain defenses they might have under state tort laws--such as statutes of limitations or the need to prove negligence--for "extraordinary nuclear occurrences" ("ENOs"). An ENO is defined as a nuclear incident which results in significant offsite releases of radioactivity and signficant damage to offsite persons or property.[2] Congress put the ENO threshold in the waiver of defenses provision supposedly to discourage "nuisance" lawsuits.

However, there is no rational relationship between the overall severity of an accident and the merit of individual claims. For example, a single farm might be severely contaminated by a transportation accident, but if the overall damages from the accident did not reach a certain level, that farmer would be denied the "benefits" of the defense waivers. The difficulty of establishing a causal link between a nuclear incident and a particular injury, which is a requirement to recover damages even when negligence need not be proved, is sufficient to guarantee that frivolous claims will not prevail. Moreover, the ENO threshold only adds unnecessary complexity to the already difficult task of fairly compensating nuclear accident victims.[3] One can easily think of more worthwhile subjects for the NRC staff to devote its limited resources to in the aftermath of a nuclear accident than studying tort law issues which are best left to resolution by the courts.

Congress should eliminate the ENO threshold so that the waivers of defenses apply to all "nuclear incidents," which is defined in the Atomic Energy Act as any occurrence which causes bodily injury or property damage as a result of materials released from a nuclear facility. Moreover, the waiver provisions should clearly be applicable to all nuclear activities, including waste disposal, transportation, and federal nuclear facilities of any kind.

Probably the most important of the defense waivers is the waiver of statute of limitations defenses. Because of the long latency periods of many radiation-caused injuries, statutes of limitations in states that do not have "discovery rules" would likely bar many meritorious claims. A discovery rule states that the statute of limitations does not begin to run until a claimant discovers that he or she is injured. The present Price-Anderson Act waives any such defense (for ENOs) until three years after discovery of the injury, but only for twenty years following the accident.

Since many radiation injuries have latency periods longer than 20 years, the twenty-year cutoff is totally arbitrary and unfair. As far as waste management activities are concerned, if the injuries result from the failure of a repository to isolate radioactive materials from the environment, contamination of the accessible environment would probably not occur for decades, and the process would likely be so gradual that it would not be possible even to say when an "incident" occurred. Even after gradual contamination was an established fact, how would one determine when it had risen to the level of an actionable injury? The statute of limitations waiver should be valid until at least five years following discovery of injury, with no arbitrary cutoff date.

Costs of Investigating, Defending and Settling Claims

The current Price-Anderson Act permits the legal costs incurred by the insurance pools and other defendants to be paid out of the public compensation fund. We believe that is inconsistent with the purpose of the fund. It certainly encourages excessive litigation and discourages settlement of claims. The Act should be amended to prohibit legal costs of investigating, defending, and setting claims from being paid out of the public compensation fund.

Subcommittee Questions

1. Should the Price-Anderson Act be extended? If so, what changes, if any, should the Congress make in the existing Act?

Reply: Yes, the Act should be extended with major modifications. See discussion of needed changes above.

2. To what extent, if any, can or should the Price-Anderson Act authority be employed for the purpose of encouraging greater accountability on the part of those with whom agreements of indemnification have been reached under the Act, for the activities undertaken pursuant to those agreements?

Reply: Price-Anderson Act authority should be employed to the fullest possible extent to encourage greater accountability on the part of those covered by indemnification agreements. This result would best be accomplished by removing the limits on liability for both the commercial nuclear industry and the government, and by eliminating any provisions which purport to "hold harmless" contractors of the federal government in nuclear activities if the contractors are found to be negligent. These provisions are unjustifiable.

3. What approach should the Congress take with respect to determining liability and compensating the public for accidents that occur as a result of those activities undertaken by the Department of Energy involving the transportation, storage, and

disposal of radioactive waste?

Reply: The federal government should accept full liability for all of its nuclear activities--not just waste disposal--on the same basis as private parties. See discussion above.

3(A) Should the Congress retain the basic framework of the existing Price-Anderson Act, under which all such issues regarding contractor liability are addressed in the context of an indemnification agreement with the contractor(s) responsibible for carrying out those activities?

Reply: Yes, contractor liability should continue to be addressed through government indemnification agreements. However, the government should not hold the contractors "harmless" if they are negligent. Rather, DOE should be required to seek reimbursement from contractors for liability incurred because of the contractors' negligence.

3(B) Should the Department of Energy, as opposed to the contractors, be directly liable for actions that it takes involving nuclear waste transportation, storage, and disposal? If so, under what terms and conditions? What changes, if any, would you recommend in the Federal Tort Claims Act--the Act that currently governs the liability of the Department of Energy for such activities?

Reply: Both DOE and indemnified contractors should be liable withouth limitations for any actions they take involving any nuclear activity on behalf of the federal government. The Federal Tort Claims Act must be amended to make it clear that none of the federal government's nuclear activities are to be deemed "discretionary functions" under that act. Discretionary government functions are not covered by the Federal Tort Claims Act. In addition, it should be made clear that the waivers of defenses in 42 U.S.C. sec. 2210(n) would apply to all "nuclear incidents" involving any federal nuclear activities and that the de facto strict liability which would be imposed by the waivers would govern over the Federal Tort Claims Act's lack of provision for strict liability on the part of the government.

3(C) Where should funds to pay public liability claims from an accident involving nuclear waste transportation, storage, or disposal come from? What mechanism should be established for ensuring prompt payment of any public liability claims? Should the Congress appropriate funds in advance of an accident, so that a source of funds is readily available when such claims are made?

Reply: Funds to pay liability claims resulting from nuclear waste incidents should come from the Nuclear Waste Trust Fund or the U.S. Treasury, depending on the pro rata contributions from commercial or federal wastes, respectively. See discussion above. If the Nuclear Waste Trust Fund is likely to lack a pool of funds sufficient to satisfy prompt claims, then Congress should consider appropriating funds in advance for this purpose.

3(D) What standard of care should be adopted for determining liability for nuclear waste transportation, storage and disposal activities? Should that standard be imposed by the federal government, or should the states be allowed the flexibility to adopt whatever standard they deem appropriate?

Reply: As discussed above, the waivers of defenses provided in 42 U.S.C. sec. 2210(n) should be amended to eliminate the "extraordinary nuclear occurrence" threshold for their application (resulting in their application to all "nuclear incidents"); to extend the waivers to the federal government and its contractors engaged in any nuclear activities, including waste management, on behalf of the government; and to extend the waiver of statutes of limitations until at least five years after the discovery of injury, with no cutoff. Application of the waivers of defenses to federal nuclear activities would have the effect of imposing a "strict liability" standard of care on those activities, by waiving the "not negligent" defense. The waivers, if extended to the federal government and its contractors, would result in a uniform national floor on the treatment of nuclear incident victims. This is particularly important with respect to federal nuclear activities, since the federal government would otherwise retain certain defenses under the Federal Tort Claims Act that are now denied most private defendants under prevailing tort laws in most states.

CONCLUSION

Congress has the opportunity this year to correct serious deficiencies and inequities in the federal scheme for providing compensation for nuclear accidents. At a minimum, the Yakima Indian Nation strongly urges you to eliminate the liability limits, clarify that unlimited Price-Anderson coverage extends to all federal nuclear facilities and contractors, and strengthen the waivers of defenses along the lines suggested above. Although it is deficient in a couple respects discussed above, we feel the best overall legislation now before Congress is S. 1761, introduced by Senator Stafford. I thank you again for this opportunity to make our views on this important subject known to you.

NOTES

[1] 12 Stat. 951.

[2] 42 U.S.C. 2210(n).

[3] Following the 1979 accident at Three Mile Island 2, the NRC took more than a year to determine that the accident did not satisfy its criteria for an ENO.

STATEMENT OF TERRY HUSSEMAN

OFFICE OF HIGH-LEVEL NUCLEAR WASTE MANAGEMENT

STATE OF WASHINGTON

to the

SUBCOMMITTEE ON NUCLEAR REGULATION

of the

SENATE COMMITTEE ON ENVIRONMENT AND PUBLIC WORKS

October 22, 1985

Thank you Chairman Simpson and members of the Subcommittee for inviting us to appear before you today.

My name is Terry Husseman. I am Director of the Office of High-Level Nuclear Waste Management in the state of Washington. Our office provides staff support to the Nuclear Waste Board, which is our state's body with responsibility over high-level radioactive waste disposal.

Curtis Eschels, Special Assistant to Governor Gardner, intended to be here today, but illness made his appearance impossible. I do have a statement by Mr. Eschels, which I submit to you Mr. Chairman, for inclusion in the record. I have a few brief remarks to summarize Mr. Eschels' testimony.

Our testimony today arises form our state's designation as one of the six "first round" states selected by the United States Department of Energy, under the Nuclear Waste Policy Act (NWPA), for consideration as the location for the nation's high-level radioactive waste repository. For this reason, we have followed carefully that 1982 Act's implementation. Indeed, we have participated actively in many of the Act's program, for example, we have engaged in extensive consultation and cooperation negotiations with the Department of Energy as contemplated by Section 117 of NWPA. Our negotiations on a Consultation and Cooperation Agreement came to a stand-still largely because of the Department of Energy's stated inability to commit to levels of liability that our negotiators--with full backing from Governor Gardner, the previous governor and both houses of our legislature--insisted be borne. For purposes relevant to this hearing, our experience has provided us with a very important recommendation. Congress must, with dispatch, address the problems of liability and compensation for damages and injury arising from the disposition of high-level radioactive waste under NWPA. It is Governor Gardner's position that Congress should be guided by the following fundamentals for all NWPA incidents involving nuclear wastes:

1. Strict and absolute federal liability, without regard to fault, should be the fundamental of federal policy.

2. Full compensation should be provided, regardless of fault, to all victims of any nuclear incident arising under the NWPA program.

3. A red tape free program should be established that provides for victims to be compensated for all losses expeditiously and without any undue burdens.

4. States and other entities should be "held harmless" from any liabilities that they might otherwise incur through any incidental role they may have in the implementation of the NWPA.

In our view, many of the NWPA's programs will never to achieved without such legislation. For example, no Consultation and Cooperation agreement between the Department of Energy and a state, as provided by NWPA, will ever be consummated. Indeed, the basic objective of the NWPA--the operation of a repository--is placed in peril is an unlimited, strict liability policy is not enacted in the near future.

In simplest terms, the NWPA cannot be successfully implemented unless (1) the general public is convinced through credible implementation of the NWPA that a repository is completely safe, and (2) the public is fully protected against all damages and injuries arising from a nuclear incident involving the repository program.

Most bills now being considered by Congress on federal liability for nuclear waste accidents relate to Price-Anderson. That 1957 enactment may be the vehicle for establishing an unlimited, strict liability policy for NWPA activities. However, certain differences between incidents at power plants and waste repositories indicate that the better approach may be to tailor a program outside of Price-Anderson that is specially designed for both the commingled, commercial/defense waste high-level repository program now being implemented under the NWPA and the dedicated defense waste repository for transuranic wastes.

Washington and several other states are currently working together to develop proposed legislation for consideration by Congress. We are nearing completion of this effort and anticipate delivery of the proposal to Congress in the very near future. We will certainly share with this Subcommittee the product of our cooperative effort upon its completion.

Our fundamental message, regardless of the vehicle used, is that a strict liability, full compensation policy must be enacted if these nationally important programs are to have a chance of being successfully implemented.

Thank you for the opportunity to appear today. We look forward to working with your Subcommittee.

STATEMENT OF CURTIS ESCHELS

OFFICE OF THE GOVERNOR

STATE OF WASHINGTON

to the

SUBCOMMITTEE ON NUCLEAR REGULATION

of the

SENATE COMMITTEE ON ENVIRONMENT AND PUBLIC WORKS

October 22, 1985

Chairman Simpson and members of the Subcommittee:

Thank you, Mr. Chairman, for inviting me to present my views to your Subcommittee.

Introduction

My name is Curtis Eschels. I am Chairman of the Energy Facility Site Evaluation Council of Washington. In that capacity I am a member of the Nuclear Waste Board, which is our state's body with responsibility over high-level radioactive waste disposal. I am also a Special Assistant to Washington's Governor, Booth Gardner. My appearance today is as his representative.

My principal objective today is to emphasize the need for Congress to address the issue of the federal government's liability for injuries, damage and costs relating to nuclear accidents that may be incurred in the implementation of the "high-level" nuclear waste repository program of the Nuclear Waste Policy Act of 1982 (NWPA). (Please note that the views expressed herein are limited to NWPA considerations and do not relate to the Price-Anderson Act as it applies to commercial power plants.)

It is imperative that Congress resolve the issue by enacting a federal policy of strict, absolute and unlimited federal liability that compensates all for losses arising from nuclear incidents of the federal government's waste disposal program. Enactment of this absolute liability, unlimited compensation policy should be without delay. Failure to act in a timely fashion places NWPA's implementation in peril.

I want to take a few moments to describe the backdrop upon which our recommendations have been formed. Few states, if any, have participated more fully than Washington in the various elements of NWPA's deep geologic repository siting program for disposal of high-level wastes. Our state's extensive involvement, beginning at the inception of the federal repository program in 1983, has been triggered primarily by two actions of the federal government. First, the Department of Energy in early 1983 determined that Washington State was one of six states with a "potentially acceptable site" for a repository located within its boundaries. Second, in December, 1984, the Department of Energy announced preliminarily that a repository site in Washington was one of three proposed for "site characterization" — the last major step before presidential selection of one thereof as the location of a national site for disposal of high-level radioactive wastes. As a result of this second federal action, our state has markedly increased its efforts to ensure that all of its citizens are fully protected as each phase of the NWPA process develops.

While Washington has been engaged in a wide range of NWPA activities, one activity is worthy of special mention — the Consultation and Cooperation Agreement process. Section 117 of NWPA provides for the execution of a "Consultation and Cooperation" (C&C) Agreement between a state and the Department of Energy. That agreement sets forth the procedures that the two bodies will follow involving a broad range of subjects pertaining to state participation in the various program elements of NWPA.

Over the last two years, Washington alone among the several states has been involved in extensive and intensive negotiations with USDOE on the terms of a "C&C" agreement. Although no agreement has been executed, this negotiation process has been very instructive to our state in terms of developing a far better understanding of the NWPA.

One of the benefits of these C&C negotiations, relevant to today's hearing, was that it caused our state — its executive branch, its legislature and its citizenry generally — to examine carefully the issue of liability for injuries and costs arising from the implementation of NWPA's repository program. This examination revealed, first, that NWPA itself does not address directly the "liability" issue, either expressly or implicitly. Second, the indemnification and insurance program embodied in the Price-Anderson Act, the program relied upon by USDOE to resolve the "liability" issue, was not designed with the unique repository program of NWPA in mind. The Act's applicability to the NWPA program is, at best, unclear. Furthermore, even if the Act is indeed applicable, as the United State Department of Energy contends, serious questions were raised as to sufficiency of the indemnification and insurance program of Price-Anderson as a satisfactory resolution to the NWPA program.

In sum, we are convinced that the national policy pertaining to federal responsibilities and damages arising from accidents under the high-level nuclear waste repository program is in urgent need of further definition by Congress.

Recommendation

It is against this backdrop of experience that I turn directly to the issue of federal policy as it pertains to liability for nuclear incidents arising from implementation of the NWPA. In Governor Gardner's view, Congress should be guided by the following fundamentals for all NWPA incidents involving nuclear wastes:

1. Strict and absolute federal liability, without regard to fault, should be the fundamental of federal policy.
2. Full compensation should be provided, regardless of fault, to all victims of any nuclear incident arising under the NWPA program.
3. A red-tape free program should be established that provides for victims to be compensated for losses expeditiously and without any undue burdens.
4. State and other entities should be "held harmless" from any liabilities that they might otherwise incur through any incidental role they may have in NWPA's implementation.

Governor Gardner's position is founded on the simple proposition that the national government should shoulder the full liability burden as to those federal programs of high danger that have historically embodied an overriding, dominant federal role and direction. No federal initiative, dominated as it is by federal ownership and regulatory interests, more clearly falls into this category than the comprehensive set of federal "nuclear" programs developed by Congress over the past forty years.

Congress is now considering several bills to resolve federal "liability" policy. Each of these proposals builds upon the Price-Anderson Act. An initial inquiry is to determine whether the existing program of that Act is the most appropriate vehicle for developing a liability and compensation scheme for accidents arising under the NWPA. It is our recommendation that, as an alternative, careful review should be given by Congress to the development of a liability and compensation program, based on the fundamentals described earlier, that is specially tailored for accidents arising under NWPA.

The Price-Anderson Act indemnity scheme was developed primarily to resolve liability issues under the commercial reactor program, a long-established program where the risks of accident have been extensively examined. There is no similar background of understanding for NWPA's program, for it is both new and unique. Likewise, while the Price-Anderson Act provides broad coverage of catastrophic occurrences arising from the commercial program, it does not appear to provide similar coverage to "slow leak" occurrences that are more likely associated with NWPA's repository program. In this context, it is not altogether certain that the existing Price-Anderson framework will satisfy the federal liability requirements consistent with the NWPA fundamentals previously set forth.

The State of Washington is committed to participate fully and in good faith in the respository siting program established by Congress in the NWPA. In this regard, I note that Washington has very significant, unresolved concerns as to the merits of siting a deep repository at Hanford, Washington, as suggested recently by the Department of Energy. It is Governor Gardner's position in NWPA's implementation that any acceptance of a repository at Hanford must satisfy three conditions: (1) it must be demonstrated to our satisfaction that it is safe; (2) it must be superior to any other site; and (3) it must be acceptable to the citizens of Washington.

Congress has determined, as primary policy, that state participation in NWPA's repository planning and development program is "essential" if these programs are to be successfully completed. This mandated state participation has no real chance of being accomplished unless the liability issue I have addressed is resolved by Congress to the satisfaction of the various states.

In sum, the United States must take the full responsibility, absolutely and without regard to fault, for all injuries and damages arising from radioactive releases in the implementation of the NWPA. Enactment of legislation to accomplish these objectives is essential to NWPA's successful implementation.

Conclusion

I close by pointing out that NWPA's repository program, although dominated federally in its administration, contemplates implicitly a program of shared responsibilities and burdens between the federal government and various states. Thus, a single state, the one selected as host for the deep geologic repository, will shoulder a very heavy burden not only on behalf of its sister states but in support of valuable national interests as well. Similarly, "corridor" states hosting nuclear wastes while in transit will also carry more than their fair share of NWPA's program. When balanced against this heavy state involvement, a program of strict liability borne by the federal government is eminently fair and reasonable.

We have reviewed the various bills now pending in Congress on the strict liability—full compensation issue. They all appear to be pointed generally in the right direction. However, none meets fully our fundamental criteria and concerns.

Washington and several of its sister states are working together to develop proposed legislation for consideration by Congress. We are nearing completion of this effort and anticipate delivery of the proposal to Congress in the very near future. We will be sharing with this subcommittee the product of this state cooperation immediately upon its completion.

We look forward to working with you, Mr. Chairman, and members of your subcommittee in the conduct of your tasks in this very important area of high-level nuclear waste disposal.

Again, I thank you.

99TH CONGRESS
1ST SESSION

S. 445

To amend the Price-Anderson Act to remove the liability limits for nuclear accidents, to provide better economic protection for people living near nuclear powerplants and nuclear transportation routes, and for other purposes.

IN THE SENATE OF THE UNITED STATES

FEBRUARY 7 (legislative day, JANUARY 21), 1985

Mr. HART introduced the following bill; which was read twice and referred to the Committee on Environment and Public Works

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A BILL

To amend the Price-Anderson Act to remove the liability limits for nuclear accidents, to provide better economic protection for people living near nuclear powerplants and nuclear transportation routes, and for other purposes.

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled,

SECTION 1. This Act may be cited as the "Civilian Nuclear Power Regulation Improvement and Safety Incentives Act of 1985".

LIMITATION ON LIABILITY

SEC. 2. Section 170 of the Atomic Energy Act of 1954, as amended, is amended by striking out subsection 170 e., and relettering the subsequent subsections as necessary.

EXTRAORDINARY NUCLEAR OCCURRENCE

SEC. 3. (a) Section 11 of the Atomic Energy Act of 1954 is amended—

(1) by striking out subsection j.; and

(2) in subsection q. by striking out ", including an extraordinary nuclear occurrence,".

(b) Section 170 n. of the Atomic Energy Act of 1954 is amended by striking out "extraordinary nuclear occurrence" and substituting "nuclear incident" in each place it appears.

STATUTE OF LIMITATIONS

SEC. 4. Section 170 n. (1) of the Atomic Energy Act of 1954 is amended in the first sentence—

(a) by striking out the clause immediately following subparagraph (c) up to but not including "(i)", and inserting in lieu thereof the following: "the Commission must incorporate provisions in indemnity agreements with licensees and contractors under this section, and must require provisions to be incorporated in insurance policies or contracts furnished as proof of financial protection, which waive"; and

(b) by inserting in clause (iii) a period after "thereof" and striking out the remainder of the sentence.

99TH CONGRESS
1ST SESSION

S. 1225

To amend the Atomic Energy Act of 1954, as amended, to establish a comprehensive, equitable, reliable, and efficient mechanism for full compensation of the public in the event of an accident resulting from activities undertaken under contract with the Department of Energy or activities undertaken by Nuclear Regulatory Commission licensees involving nuclear materials.

IN THE SENATE OF THE UNITED STATES

MAY 24 (legislative day, APRIL 15), 1985

Mr. DOLE (for Mr. SIMPSON) (for himself and Mr. MCCLURE) introduced the following bill; which was read twice and jointly referred to the Committee on Environment and Public Works and the Committee on Energy and Natural Resources, with the proviso that if either committee reports the bill, the other committee shall be obligated to report the bill in 120 calendar days or be discharged from further consideration thereof

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A BILL

To amend the Atomic Energy Act of 1954, as amended, to establish a comprehensive, equitable, reliable, and efficient mechanism for full compensation of the public in the event of an accident resulting from activities undertaken under contract with the Department of Energy or activities undertaken by Nuclear Regulatory Commission licensees involving nuclear materials.

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled,

★(Star Print)

SHORT TITLE

SECTION 1. This Act may be cited as the "Price-Anderson Act Amendments Act of 1985".

FINDINGS AND PURPOSES

SEC. 2. (a) The Congress finds and declares that—

(1) an equitable, efficient, reliable, and comprehensive system, established in advance of any accident involving nuclear materials subject to the Atomic Energy Act of 1954, as amended, that provides a mechanism for full compensation of the public in the event of such an accident is in the public interest;

(2) the basic framework established under section 170 of the Atomic Energy Act of 1954, as amended, and the essential elements of that approach, have achieved those fundamental objectives and, accordingly, should be retained; and

(3) based upon the experience gained in implementing the present system of providing compensation for accidents involving nuclear materials, and in light of developments that have taken place since the Congress last extended and amended such system, it is appropriate and in the public interest for the Congress to consider such experience and developments and to make such changes as will advance the fundamental objectives set forth in clause (1).

(b) The purposes of this Act are to—

(1) establish an equitable, efficient, reliable, and comprehensive system, in advance of any accident involving nuclear materials, which provides a mechanism for full compensation of the public in the event of such an accident for both present and future nuclear material activities; and

(2) incorporate in such system the experience gained and the developments that have taken place since the Congress last extended and amended the system.

FINANCIAL PROTECTION

SEC. 3. Section 170 b. of the Atomic Energy Act of 1954, as amended, is amended to read as follows:

"b. (1) The amount of financial protection required shall be the amount of liability insurance available from private sources, except that the Commission may establish a lesser amount on the basis of criteria set forth in writing, which it may revise from time to time, taking into consideration such factors as—

"(A) the cost and terms of private insurance,

"(B) the type, size, and location of the licensed activity and other factors pertaining to the hazard, and

"(C) the nature and purpose of the licensed activity.

For facilities designed for producing substantial amounts of electricity and having a rated capacity of one hundred thousand electrical kilowatts or more, the amount of financial protection required shall be the maximum amount available at reasonable cost and on reasonable terms from private sources. Such financial protection may include private insurance, private contractual indemnities, self insurance, other proof of financial responsibility, or a combination of such measures and shall be subject to such terms and conditions as the Commission may, by rule, regulation, or order, prescribe.

"(2)(A) In prescribing such terms and conditions for licensees required to have and maintain financial protection equal to the maximum amount of liability insurance available from private sources, the Commission shall, by rule initially prescribe not later than twelve months from the date of enactment of the Price-Anderson Act Amendments Act of 1985, include, in determining such maximum amount, private liability insurance available under an industry retrospective rating plan providing for premium charges deferred in whole or major part until public liability from a nuclear incident exceeds or appears likely to exceed the level of the primary financial protection required of the licensee involved in the nuclear incident: *Provided*, That such insurance is available to, and required of, all of the licensees of such facilities without regard to the manner in which they obtain other types or amounts of such financial protection. The standard deferred premium which may be charged following any nuclear incident under such a plan shall be not less than $10,000,000 nor more than $15,000,000 for each facility required to maintain the maximum amount of financial protection.

"(B) The amount which may be charged a licensee under the industry retrospective rating plan required pursuant to subparagraph (A) following any nuclear incident shall not exceed the licensee's pro rata share of the aggregate public liability claims and costs arising out of the nuclear incident. Payment of any State premium taxes which may be applicable to any deferred premium provided for in this Act shall be the responsibility of the licensee and shall not be included in the retrospective premium established by the Commission. The Commission is authorized to establish a maximum amount which the aggregate deferred premium charged for each facility within one calendar year may not exceed. The Commission may establish amounts less than the standard premium for individual facilities taking into account such factors as the facility's size, location, and other factors pertaining to the hazards.

"(C) The Commission shall establish such requirements as are necessary to assure availability of funds to meet any assessment of deferred premiums within a reasonable time when due, and may provide reinsurance or shall otherwise guarantee the payment of such premiums in the event it appears that the amount of such premiums will not be available on a timely basis through the resources of private industry and insurance. Any agreement by the Commission with a licensee or indemnitor to guarantee the payment of deferred premiums may contain such terms as the Commission deems appropriate to carry out the purposes of this section and to assure reimbursement to the Commission for its payments made due to the failure of such licensee or indemnitor to meet any of its obligations arising under or in connection with financial protection required under this subsection including without limitation terms creating liens upon the licensed facility and the revenues derived therefrom or any other property or revenues of such licensee to secure such reimbursement and consent to the automatic revocation of any license.

"(3)(A) In prescribing such terms and conditions for licensees required to have and maintain financial protection equal to the maximum amount of liability insurance available from private sources, the Commission shall, by rule initially prescribed not later than twelve months from the date of enactment of the Price-Anderson Act Amendments Act of 1985, also include, in determining such maximum amount, the sum of the funds generated by assessing a fee of up to one mil per kilowatt hour on electricity generated and sold by each licensed civilian nuclear power reactor. The Commission is authorized to collect such a fee from all civilian nuclear power reactor licensees, on all electricity generated and sold by such licensees following a nuclear incident, upon determining that public liability from such incident exceeds or appears likely to exceed the sum of the private insurance and the industry retrospective rating plan required pursuant to this section. The order of the Commission assessing such fee shall establish a commencement date for assessment of the fee. Collection of the fee shall terminate when the total amount of public liability associated with such nuclear incident, as defined in section 11 w. of this Act, has been compensated: *Provided, however,* That the amount collected shall not exceed $500,000,000 per incident.

"(B) The Commission is authorized to establish a maximum amount which the aggregate fees assessed for each facility within one calendar year may not exceed.".

INDEMNIFICATION AGREEMENTS FOR ACTIVITIES UNDERTAKEN UNDER CONTRACT WITH THE DEPARTMENT OF ENERGY

SEC. 4. Section 170 d. of the Atomic Energy Act of 1954, as amended, is amended to read as follows:

"d. (1)(A) In addition to any other authority the Secretary of the Department of Energy (hereinafter in this section referred to as the Secretary) may have, the Secretary is authorized until August 1, 2012, to enter into agreements of indemnification with its contractors for the construction or operation of production or utilization facilities or other activities under contracts for the benefit of the United States involving activities under the risk of public liability for a substantial nuclear incident.

"(B)(i) The authority conferred upon the Secretary pursuant to subparagraph (A) to enter into agreements of indemnification with contractors shall include contracts entered into by the Secretary for the purpose of carrying out such activities as the Secretary is authorized to undertake, pursuant to this Act or any other law, involving the storage or disposal of spent nuclear fuel, high-level radioactive waste, or transuranic waste, including the transportation of such materials to a storage or disposal site or facility, and the construction and operation of any such site or facility. For all such activities, the authority conferred upon the Secretary pursuant to subsection 170 d. (1)(A) shall be the exclusive means of indemnification under this section.

"(ii) For the purpose of compensating public liability claims, as defined in section 11 w. of this Act, arising out of activities involving the storage or disposal of spent nuclear fuel, high-level radioactive waste, or transuranic waste produced as a result of the generation of electricity in a civilian nuclear power reactor, including the transportation of such materials to a storage or disposal site or facility, and the construction and operation of any such site or facility, the Secretary shall make available such funds as may be necessary, in an amount not to exceed the maximum amount of financial protection required of licensees pursuant to subsection 170 a., from the nuclear waste fund established pursuant to section 302 of the Nuclear Waste Policy Act of 1982 (42 U.S.C. 10222).

"(iii) Public liability claims arising out of activities involving the storage or disposal of all other spent nuclear fuel, high-level radioactive waste, or transuranic waste not specified in clause (ii), including the transportation of such materials to a storage or disposal site or facility, and the construction and operation of any such site or facility, shall be compensated in accordance with the provisions of this Act, and from the same source of funds applicable to all other contractors indemnified pursuant to this subsection.

"(iv)(I) In the event of a nuclear incident that arises out of or results from or occurs in the course of activities undertaken by the Secretary in connection with the storage or disposal of spent nuclear fuel, high-level radioactive waste, or transuranic waste, including the transportation of such materials to a storage or disposal site or facility, and the construction and operation of any such site or facility, the Secretary shall determine the extent to which such incident involves materials produced as a result of the generation of electricity in a civilian nuclear power reactor, or materials resulting from other activities, or both, and based upon such determination, render a decision as to the appropriate source of funds, in accordance with clauses (ii) and (iii), to be used in compensating public liability claims.

"(II) The funds to be used to compensate public liability claims pursuant to this subparagraph shall be provided in a manner and in such amounts as are appropriate to ensure that the funds necessary to compensate such claims are shared on a pro rata basis, in accordance with the determination rendered pursuant to subclause (I). The decision on the sources of such funds shall be final and conclusive. Within ninety days of the date of enactment of the Price-Anderson Act Amendments Act of 1985, the Secretary shall promulgate standards and regulations for making the determinations required under this subparagraph.

"(2) In agreements of indemnification entered into pursuant to subsection 170 d. (1), the Secretary may require its contractor to provide and maintain financial protection of such a type and in such amounts as the Secretary shall determine to be appropriate to cover public liability arising out of or in connection with the contractual activity, and shall indemnify the persons indemnified against such claims above the amount of the financial protection required, in an amount equal to the maximum amount of financial protection required of licensees pursuant to subsection 170 a., excluding costs of investigating and settling claims and defending suits for damage in the aggregate for all persons indemnified in connection with such contract and for each nuclear incident: *Provided,* That this amount of indemnity shall be reduced by the amount of the financial protection that the Secretary requires of the contractor.

"(3) Notwithstanding paragraph (2) of this subsection, if the maximum amount of financial protection required of licensees pursuant to subsection 170 a. is increased by the Commission, the amount of indemnity, together with any financial protection required of the contractor, shall at all times remain equal to the maximum amount of financial protection required of licensees pursuant to subsection 170 a. The amount of indemnity provided contractors pursuant to this subsection shall not, at any time, be reduced in the event that the maximum amount of financial protection required of licensees is reduced.

"(4) In the case of nuclear incidents occurring outside the United States, the amount of the indemnity provided by the Secretary pursuant to this subsection shall not exceed $100,000,000.

"(5) The provisions of this subsection may be applicable to lump sum as well as cost type contracts and to contracts and projects financed in whole or in part by the Secretary.

"(6) A contractor with whom an agreement of indemnification has been executed and who is engaged in activities connected with the underground detonation of a nuclear explosive device shall be liable, to the extent so indemnified under this section, for injuries or damage sustained as a result of such detonation in the same manner and to the same extent as would a private person acting as principal, and no immunity or defense founded in the Federal, State, or municipal character of the contractor or of the work to be performed under the contract shall be effective to bar such liability.".

AGGREGATE LIABILITY FOR A SINGLE NUCLEAR INCIDENT

SEC. 5. Section 170 e. of the Atomic Energy Act of 1954, as amended, is amended to read as follows:

"e. (1)(A) With respect to nuclear incidents involving—

"(i) licensees required to have and maintain financial protection equal to the maximum amount of liability insurance available from private sources, and

"(ii) contractors with whom the Secretary has entered into an agreement of indemnification, pursuant to subsection 170 d.,

the aggregate liability for a single nuclear incident of persons indemnified, including the reasonable costs of investigating and settling claims and defending suits for damage, shall not exceed the maximum amount of financial protection required of licensees pursuant to subsection 170 a.: *Provided, however,* That the aggregate liability for nuclear incidents involving contractors with whom the Secretary has entered into an agreement of indemnification, pursuant to subsection 170 d., shall not, at any time, be reduced in the event that the amount of financial protection required of licensees required to have and maintain financial protection equal to the maximum amount of liability insurance available from private sources is reduced.

"(B) With respect to nuclear incidents involving licensees other than those specified in subsection 170 e. (1)(A)(i), the aggregate liability for a single nuclear incident of persons indemnified, including the reasonable costs of investigating and settling claims and defending suits for damage, shall not exceed (i) the sum of $500,000,000 together with the amount of financial protection required of the licensee, or (ii) if the amount of financial protection required of the licensee exceeds $60,000,000, such aggregate liability shall not exceed the sum of $560,000,000 or the amount of financial protection required of the licensee, whichever amount is greater.

"(C) In the event of a nuclear incident involving damages in excess of the amount of aggregate liability, the Congress will thoroughly review the particular incident, in accordance with the procedures set forth in subsection 170 i., and will, in accordance with such procedures, take whatever action is necessary, including approval of appropriate compensation plans, to compensate the public in full for all public liability claims resulting from a disaster of such magnitude.

"(2) With respect to any nuclear incident occurring outside of the United States to which an agreement of indemnification entered into under the provisions of subsection 170 d. is applicable, such aggregate liability shall not exceed the amount of $100,000,000 together with the amount of financial protection required of the contractor.".

CONGRESSIONAL REVIEW OF COMPENSATION PLANS

SEC. 6. Section 170 i. of the Atomic Energy Act of 1954, as amended, is amended to read as follows:

"i. (1) After any nuclear incident which will probably require payments by the United States under this section, the Secretary or the Commission, as appropriate, shall make a survey of the causes and extent of damage, and shall submit such report forthwith to the Congress, to the Congressmen of the affected districts, to the Senators of the affected States, and, except for information which would cause serious damage to the national defense of the United States, to the public, to the parties involved, and to the courts. The Commission and the Secretary shall report annually to the Congress on the operations under this section.

"(2) Upon a determination by a court, pursuant to subsection 170 o., that public liability from a single nuclear incident may exceed the aggregate liability under subsection 170 e., the President of the United States shall, within ninety days after such determination, submit to the Congress—

"(A) a report setting forth the causes and extent of damage and the estimated requirements for full, equitable, and efficient compensation and relief of all claimants;

"(B) one or more compensation plans, containing a recommendation or recommendations as to the relief to be provided; and

"(C) any additional legislative authorities necessary to implement such compensation plan or plans.

"(3) Any compensation plan transmitted to the Congress pursuant to paragraph (2) shall bear an identification number and shall be transmitted to both Houses of Congress on the same day and to each House while it is in session.

"(4) No such compensation plan may be considered approved for purposes of subsection 170 e. (1) unless between the date of transmittal and the end of the first period of sixty calendar days of continuous session of Congress after the date on which such action is transmitted to such House, each House of Congress passes a resolution described in paragraph 6 of this subsection.

"(5) For the purpose of paragraph 4 of this subsection—

"(A) continuity of session is broken only by an adjournment of Congress sine die; and

"(B) the days on which either House is not in session because of an adjournment of more than three days to a day certain are excluded in the computation of the sixty-day calendar period.

"(6)(A) This paragraph is enacted by Congress—

"(i) As an exercise of the rulemaking power of the Senate and the House of Representatives, respectively, and as such it is deemed a part of the rules of each House, respectively, but applicable only with respect to the procedure to be followed in that House in the case of resolutions described by clause (B) and it supersedes other rules only to the extent that it is inconsistent therewith; and

"(ii) with full recognition of the constitutional right of either House to change the rules (so far as relating to the procedure of that House) at any time, in the same manner and to the same extent as in the case of any other rule of the House.

"(B) For purposes of this paragraph, the term 'resolution' means only a resolution of either House of Congress the matter after the resolving clause of which is as follows: "That the   approves the compensation plan numbered   submitted to the Congress on   , 19 .", the first blank space therein being filled with the name of the resolving House and the other blank spaces being appropriately filled; but does not include a resolution which specifies more than one compensation plan.

"(C) A resolution once introduced with respect to a compensation plan shall immediately be referred to a committee (and all resolutions with respect to the same compensation plan shall be referred to the same committee) by the President of the Senate or the Speaker of the House of Representatives, as the case may be.

"(D)(i) If the committee to which a resolution with respect to a compensation plan has been referred has not reported it at the end of twenty calendar days after its referral, it shall be in order to move either to discharge the committee from further consideration of such resolution or to discharge the committee from further consideration with respect to such compensation plan which has been referred to the committee.

"(ii) A motion to discharge may be made only by an individual favoring the resolution, shall be highly privileged (except that it may not be made after the committee has reported a resolution with respect to the same compensation plan), and debate thereon shall be limited to more than one hour, to be divided equally between those favoring and those opposing the resolution. An amendment to the motion shall not be in order, and it shall not be in order to move to reconsider the vote by which the motion was agreed to or disagreed to.

"(iii) If the motion to discharge is agreed to or disagreed to, the motion may not be renewed, nor may another motion to discharge the committee be made with respect to any other resolution with respect to the same compensation plan.

"(E)(i) When the committee has reported, or has been discharged from further consideration of, a resolution, it shall be at any time thereafter in order (even though a previous motion to the same effect has been disagreed to) to move to proceed to the consideration of the resolution. The motion shall be highly privileged and shall not be debatable. An amendment to the motion shall not be in order, and it shall not be in order to move to reconsider the vote by which the motion was agreed to or disagreed to.

"(ii) Debate on the resolution referred to in clause (i) of this subparagraph shall be limited to not more than ten hours, which shall be divided equally between those favoring and those opposing such resolution. A motion further to limit debate shall not be debatable. An amendment to, or motion to recommit, the resolution shall not be in order, and it shall not be in order to move to reconsider the vote by which such resolution was agreed to or disagreed to.

"(F)(i) Motions to postpone, made with respect to the discharge from committee, or the consideration of a resolution or motions to proceed to the consideration of other business, shall be decided without debate.

"(ii) Appeals from the decision of the Chair relating to the application of the rules of the Senate or the House of Representatives, as the case may be, to the procedures relating to a resolution shall be decided without debate.".

WAIVER OF DEFENSES

SEC. 7. (a) Section 170 n. (1) of the Atomic Energy Act of 1954, as amended, is amended—

(1) by adding "or" at the end of subparagraph (c);

(2) by adding the following new paragraphs (d), (e), and (f):

"(d) arises out of or results from or occurs in the course of the construction, possession, or operation of any facility licensed under section 53, 63, or 81 of this Act, for which the Commission has imposed as a condition of the license a requirement that the licensee have and maintain financial protection pursuant to subsection 170 a., or

"(e) arises out of or results from or occurs in the course of transportation of source material, byproduct material, or special nuclear material to or from any facility licensed under section 53, 63, or 81 of this Act, for which the Commission has imposed as a condition of the license a requirement that the licensee have and maintain financial protection pursuant to subsection 170 a., or

"(f) arises out of or results from or occurs in the course of activities undertaken by the Secretary, including activities undertaken by contract, in connection with the storage or disposal of high-level radioactive waste, spent nuclear fuel, or transuranic waste, including the transportation of such materials to a storage or disposal site or facility, and the construction and operation of any such site or facility,".

(b) Subsection n. of section 170 of the Atomic Energy Act of 1954, as amended, is amended—

(1) in paragraph (1) by—

(A) inserting after "the Commission" the following: "or the Secretary, as appropriate,"; and

(B) striking out "a Commission" in clause (c) and insert in lieu thereof "a Department of Energy"; and

(2) in paragraph (2), by inserting after "the Commission" the following: "or the Secretary, as appropriate,".

INDEMNIFICATION FROM PUBLIC LIABILITY IN EXCESS OF LEVEL OF FINANCIAL PROTECTION

SEC. 8. Section 170 c. of the Atomic Energy Act of 1954, as amended, is amended to read as follows:

"c. (1) The Commission shall, with respect to licenses issued between August 30, 1954, and August 1, 2012, for which it requires financial protection of less than $560,000,000, agree to indemnify and hold harmless the licensee and other persons indemnified, as their interest may appear, from public liability arising from nuclear incidents which is in excess of the level of financial protection required of the licensee. The aggregate indemnity for all persons indemnified in connection with each nuclear incident shall not exceed $500,000,000, excluding costs of investigating and settling claims and defending suits for damage: *Provided, however,* That this amount of indemnity shall be reduced by the amount that the financial protection required shall exceed $60,000,000.

"(2) Such a contract of indemnification shall cover public liability arising out of or in connection with the licensed activity.

"(3) With respect to any production or utilization facility for which a construction permit is issued between August 30, 1954, and August 1, 2012, the requirements of this subsection shall apply to any license issued for such facility subsequent to August 1, 2012.".

DEFINITIONS

SEC. 9. (a) Subsection s. of section 11 of the Atomic Energy Act of 1954, as amended, is amended by adding at the end thereof the following: "For purposes of those activities that the Secretary of Energy is authorized or directed to undertake, pursuant to this Act or any other law, that involve the risk of public liability for a substantial nuclear incident as a result of the storage or disposal of spent nuclear fuel, high-level radioactive waste, or transuranic waste, including the transportation of such materials to a storage or disposal site or facility, and the construction and operation of any such site or facility, the Secretary shall, to the extent that such activities are not undertaken by contract, be considered as if the Secretary were a contractor with whom an indemnity agreement has been entered into pursuant to subsection 170 d. of this Act.".

(b) Subsection t. of section 11 of the Atomic Energy Act of 1954, as amended, is amended in clause (1) by inserting after "and any other person" the following: ", as defined in subsection (s),".

DATE OF EXEMPTION FROM FINANCIAL PROTECTION REQUIREMENT

SEC. 10. Section 170 k. of the Atomic Energy Act of 1954, as amended, is amended by striking out "August 1, 1987" wherever it appears and inserting in lieu thereof "August 1, 2012".

REPORT TO JOINT COMMITTEE BY COMMISSION

SEC. 11. Section 170 o. of the Atomic Energy Act of 1954, as amended, is amended—

(1) in paragraph (3) by inserting after "The Commission", both places such phrase appears the following: "or the Secretary, as appropriate,"; and

(2) by striking out paragraph (4).

DATE OF REPORT TO CONGRESS BY NUCLEAR REGULATORY COMMISSION AND DEPARTMENT OF ENERGY

SEC. 12. Secretary 170 p. of the Atomic Energy Act of 1954 as amended, is amended by striking out "shall submit to the Congress by August 1, 1983, a detailed report", and inserting in lieu thereof "and the Secretary shall submit to the Congress by August 1, 2008, detailed reports".

CONFORMING AMENDMENTS

SEC. 13. Subsections g., h., j., and m. of section 170 of the Atomic Energy Act of 1954, as amended, are amended by inserting after "The Commission" or "the commission" wherever they appear the following: "or the Secretary, as appropriate,".

SEC. 14. Subsection f. of section 170 of the Atomic Energy Act of 1954, as amended, is amended by striking "Commission" the first two times it appears and inserting in lieu thereof "Commission or the Secretary, as appropriate,".

99TH CONGRESS
1ST SESSION

S. 1761

To amend the Atomic Energy Act of 1954, as amended, to establish a comprehensive, equitable, reliable, and efficient mechanism for full compensation of the public in the event of an accident arising out of activities of Nuclear Regulatory Commission licensees or undertaken pursuant to the Nuclear Waste Policy Act of 1982 involving nuclear materials.

IN THE SENATE OF THE UNITED STATES

OCTOBER 10 (legislative day, SEPTEMBER 30), 1985

Mr. STAFFORD introduced the following bill; which was read twice and referred to the Committee on Environment and Public Works

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A BILL

To amend the Atomic Energy Act of 1954, as amended, to establish a comprehensive, equitable, reliable, and efficient mechanism for full compensation of the public in the event of an accident arising out of activities of Nuclear Regulatory Commission licensees or undertaken pursuant to the Nuclear Waste Policy Act of 1982 involving nuclear materials.

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled,

SECTION 1. This Act may be cited as the "Price-Anderson Improvement Act of 1985".

★(Star Print)

SEC. 2. Section 170 b. of the Atomic Energy Act of 1954, as amended, is amended to read as follows:

"b. The amount of financial protection required shall be the amount of liability insurance available from private sources, except that the Commission may establish a lesser amount on the basis of criteria set forth in writing, which it may revise from time to time, taking into consideration such factors as the following: (1) the cost and terms of private insurance, (2) the type, size, and location of the licensed activity and other factors pertaining to the hazard, and (3) the nature and purpose of the licensed activity: *Provided*, That for facilities designed for producing substantial amounts of electricity and having a rated capacity of 100,000 electrical kilowatts or more, the amount of financial protection required shall be the maximum amount available at reasonable cost and on reasonable terms from private sources. Such financial protection may include private insurance, private contractual indemnities, self insurance, other proof of financial responsibility, or a combination of such measures and shall be subject to such terms and conditions as the Commission may, by rule, regulation, or order, prescribe. In prescribing such terms and conditions for licensees required to have and maintain financial protection equal to the maximum amount of liability insurance available from private sources, the Commission shall, by rule initially prescribed not later than twelve months from the date of enactment of this Act, include, in determining such maximum amount, private liability insurance available under an industry retrospective rating plan providing for annually assessed premium charges deferred in whole or major part until public liability from a nuclear incident exceeds or appears likely to exceed the level of the primary financial protection required of the licensee involved in the nuclear incident: *Provided,* That such insurance is available to, and required of, all of the licensees of such facilities without regard to the manner in which they obtain other types or amounts of such financial protection: *And provided further,* That the maximum deferred premium which may be charged for all nuclear incidents under such a plan shall be not less than $10,000,000 per year nor more than $15,000,000 per year for each facility required to maintain the maximum amount of financial protection: *And provided further,* That the annual amount which may be charged a licensee shall not exceed the licensee's pro rata share, calculated on a yearly basis, of the aggregate public liability claims and costs arising out of the nuclear incidents. Payment of any State premium taxes which may be applicable to any deferred premium provided for in this Act shall be the responsibility of the licensee and shall not be included in the retrospective premium established by the Commission. The Commission shall establish such requirements as are necessary to assure availability of funds to meet any assessment of deferred premiums within a reasonable time when due, and may provide reinsurance or shall otherwise guarantee the payment of such premiums in the event it appears that the amount of such premiums will not be available on a timely basis through the resources of private industry and insurance. Any agreement by the Commission with a licensee or indemnitor to guarantee the payment of deferred premiums may contain such terms as the Commission deems appropriate to carry out the purposes of this section and to assure reimbursement to the Commission for its payments made due to the failure of such licensee or indemnitor to meet any of its obligations arising under or in connection with financial protection required under this subsection including without limitation terms creating liens upon the licensed facility and the revenues derived therefrom or any other property or revenues of such licensee to secure such reimbursement and consent to the automatic revocation of any license.".

SEC. 3. Section 170 c. of the Atomic Energy Act of 1954, as amended, is amended by striking "August 1, 1987" wherever it appears, and inserting in lieu thereof "August 1, 2002".

SEC. 4. Section 170 d. of the Atomic Energy Act of 1954, as amended, is amended to read as follows:

"d. (1)(A) In addition to any other authority the Secretary of Energy (hereinafter in this section referred to as the Secretary) may have, the Secretary is authorized until August 1, 2002, to enter into agreements of indemnification with the contractors of the Secretary for the construction or operation of production or utilization facilities or other activities under contracts for the benefit of the United States involving activities under the risk of public liability for a substantial nuclear incident.

"(B) The authority conferred upon the Secretary pursuant to paragraph (A) to enter into agreements of indemnification with contractors shall include contracts entered into by the Secretary for the purpose of carrying out such activities as the Secretary is authorized to undertake, pursuant to this Act or any other law, involving the storage or disposal of spent nuclear fuel, high-level radioactive waste, or transuranic waste, including the transportation of such materials to or from a storage or disposal site or facility, or test and evaluation facility, the treatment or packaging of such materials to be stored in, disposed of, or used in such a site or facility, and the identification, development, licensing, construction, operation, decommissioning, and post-decommissioning maintenance and monitoring of any such site or facility. For all such activities, the authority conferred upon the Secretary pursuant to subsection d. shall be the exclusive means of indemnification under this section.

"(C) With respect to such contractual activities for which the Secretary may make expenditures from the Nuclear Waste Fund established in section 302 of the Nuclear Waste Policy Act of 1982 (42 U.S.C. 10222):

"(i) The Secretary shall enter into agreements of indemnification with each contractor of the Secretary carrying out such contractual activities under the risk of public liability for a nuclear incident. In such agreements of indemnification the Secretary may require the contractor to provide and maintain financial protection of such a type and in such amounts as the Secretary shall determine to be appropriate to cover public liability arising out of or in connection with such contractual activities, including the storage, disposal, and related transportation of high-level radioactive waste and spent nuclear fuel. The Secretary shall indemnify the persons indemnified against such claims above the amount of financial protection required. Such indemnification shall include the reasonable costs of investigating and settling claims and defending suits to the extent that such costs are not covered by the amount of financial protection required.

"(ii) The Secretary shall make any payments required under an agreement of indemnification entered into under this subparagraph from amounts available through the Nuclear Waste Fund. The Secretary shall include the costs incurred by the Nuclear Waste Fund under this section in any review of whether the fees established to generate revenue for the Nuclear Waste Fund are sufficient to offset the costs incurred by the Nuclear Waste Fund, including the annual review by the Secretary pursuant to section 302(a)(4) of the Nuclear Waste Policy Act of 1982 (42 U.S.C. 10222(a)(4)).

"(2) In such agreements of indemnification other than specified in subsection d. (1)(C) the Secretary may require the contractor to provide and maintain financial protection of such a type and in such amounts as the Secretary shall determine to be appropriate to cover public liability arising out of or in connection with the contractual activity and shall indemnify the persons indemnified against such claims above the amount of financial protection required, in the amount of $500,000,000, excluding costs of investigating and settling claims and defending suits for damage in the aggregate for all persons indemnified in connection with such contract and for each nuclear incident: *Provided,* That this amount of indemnity shall be reduced by the amount that the financial protection required shall exceed $60,000,000.

"(3) In the case of nuclear incidents occurring outside the United States, the amount of the indemnity provided by the Secretary shall not exceed $100,000,000.

"(4) The provisions of this subsection may be applicable to lump sum as well as cost type contracts and to contracts and projects financed in whole or in part by the Secretary.

"(5) A contractor with whom an agreement of indemnification has been executed and who is engaged in activities connected with the underground detonation of a nuclear explosive device shall be liable, to the extent so indemnified under this section, for injuries or damage sustained as a result of such detonation in the same manner and to the same extent as would a private person acting as principal, and no immunity or defense founded in the Federal, State, or municipal character of the contractor or of the work to be performed under the contract shall be effective to bar such liability.".

SEC. 5. Section 170 e. of the Atomic Energy Act of 1954, as amended, is amended to read as follows:

"e. (1) With respect to liability for one or more nuclear incidents covered by an industry retrospective rating plan required by subsection 170 b., the aggregate payments in any year by or on behalf of persons indemnified, including the reasonable costs of investigating and settling claims and defending suits for damage, shall not be required to exceed the amount of financial protection provided in that year under subsection 170 b. The funds provided by financial protection under subsection 170 b. in any year by or on behalf of such persons indemnified, including the reasonable costs of investigating and settling claims and defending suits for damage, shall be the exclusive source of payments for public liability claims.

"(2) With respect to all other nuclear incidents, except as provided in subsection d. (1)(C), the aggregate liability for a single nuclear incident of persons indemnified, including the reasonable costs of investigating and settling claims and defending suits for damage, shall not exceed (a) the sum of $500,000,000 together with the amount of financial protection required of the licensee or contractor, or (b) if the amount of financial protection required of the licensee exceeds $60,000,000, such aggregate liability shall not exceed the sum of $560,000,000 or the amount of financial protection required of the licensee, whichever is greater: *Provided*, That in the event of a nuclear incident involving damages in excess of that amount of aggregate liability, Congress will thoroughly review the particular incident and will take whatever action is deemed necessary and appropriate to protect the public from the consequences of a disaster of such magnitude: *And provided further*, That with respect to any nuclear incident occurring outside of the United States to which an agreement of indemnification entered into under the provisions of subsection 170 d. is applicable, such aggregate liability shall not exceed the amount of $100,000,000 together with the amount of financial protection required of the contractor.".

Sec. 6. Section 170 h. of the Atomic Energy Act of 1954, as amended, is amended—

(1) by inserting after "Commission" wherever it appears the following: "or the Secretary, as appropriate,"; and

(2) by inserting at the beginning of the last sentence the following: "Except with respect to activities indemnified under subsection d. (1)(C),".

Sec. 7. Section 170 i. of the Atomic Energy Act of 1954, as amended, is amended to read as follows:

"i. After any nuclear incident which will probably require payments by the United States under this section or after any extraordinary nuclear occurrence, the Commission or the Secretary, as appropriate, shall make a survey of the causes and extent of damage which shall forthwith be reported to the Congress, to the Congressmen of the affected districts, and to the Senators of the affected States, and, except for information which would cause serious damage to the national defense of the United States, all final findings shall be made available to the public, to the parties involved and to the courts. The Commission and the Secretary shall report annually to the Congress on the operations under this section.".

SEC. 8. Section 170 k. of the Atomic Energy Act of 1954, as amended, is amended by striking out "August 1, 1987" wherever it appears and inserting in lieu thereof "August 1, 2002".

SEC. 9. Section 170 n. of the Atomic Energy Act of 1954, as amended, is amended to read as follows:

"n. (1) With respect to any extraordinary nuclear occurrence to which an insurance policy or contract furnished as proof of financial protection or an indemnity agreement applies and which—

"(a) arises out of or results from or occurs in the course of the construction, possession, or operation of a production or utilization facility, or

"(b) arises out of or results from or occurs in the course of transportation of source material, byproduct material, or special nuclear material to or from a production or utilization facility, or

"(c) during the course of the contract activity arises out of or results from the possession, operation, or use by a Department of Energy contractor or subcontractor of a device utilizing special nuclear material or byproduct material, or

"(d) arises out of or results from or occurs in the course of the construction, possession, or operation of any facility licensed under section 53, 63, or 81 of this Act, for which the Commission has imposed as a condition of the license a requirement that the licensee have and maintain financial protection pursuant to subsection 170 a., or for which an indemnity agreement is executed pursuant to subsection 170 k., or

"(e) arises out of or results from or occurs in the course of transportation of source material, byproduct material, or special nuclear material to or from any facility licensed under section 53, 63, or 81 of this Act, for which the Commission has imposed as a condition of the license a requirement that the licensee have and maintain financial protection pursuant to section 170 a., or for which an indemnity agreement is executed pursuant to subsection 170 k., or

"(f) arises out of or results from or occurs in the course of activities undertaken by the Secretary, including activities undertaken by contract, in connection with the storage or disposal of high-level waste, spent fuel, or transuranic waste, including the transportation of such materials to or from a storage or disposal site or facility or test and evaluation facility, the treatment or packaging of such materials to be stored in, disposed of, or used in such a site or facility, and the identification, development, licensing, construction, operation, decommissioning, and post-decommissioning maintenance and monitoring of any such site or facility,

and which does not arise out of or result from or occur in the course of an activity for which the Secretary may make expenditures from the Nuclear Waste Fund, the Commission, or the Secretary, as appropriate, may incorporate provisions in indemnity agreements with licensees and contractors under this section, and may require provisions to be incorporated in insurance policies or contracts furnished as proof of financial protection, and, with respect to any extraordinary nuclear occurrence to which an insurance policy or contract furnished as proof of financial protection applies and which arises out of or results from or occurs in the course of an activity for which the Secretary may make expenditures from the Nuclear Waste Fund, the Secretary shall incorporate provisions in indemnity agreements and shall require provisions to be incorporated in insurance policies or contracts furnished as proof of financial protection, which waive (i) any issue or defense as to conduct of the claimant or fault of persons indemnified, (ii) any issue or defense as to charitable or governmental immunity, and (iii) any issue or defense based on any statute of limitations if suit is instituted within three years from the date on which the claimant first knew, or reasonably could have known, of his injury or damage and the cause thereof, but in no event more than thirty years after the date of the nuclear incident. The waiver of any such issue or defense shall be effective regardless of whether such issue or defense may otherwise be deemed jurisdictional or relating to an element in the cause of action. When so incorporated, such waivers shall be judicially enforceable in accordance with their terms by the claimant against the person indemnified. Such waivers shall not preclude a defense based upon a failure to take reasonable steps to mitigate damages, nor shall such waivers apply to injury or damage to a claimant or to a claimant's property which is intentionally sustained by the claimant or which results from a nuclear incident intentionally and wrongfully caused by the claimant. The waivers authorized in this subsection shall, as to indemnitors, be effective only with respect to those obligations set forth in the insurance policies or the contracts furnished as proof of financial protection and in the indemnity agreements. Such waivers shall not apply to, or prejudice the prosecution or defense of, any claim or portion of claim which is not within the protection afforded under (i) the terms of insurance policies or contracts furnished as proof of financial protection, or indemnity agreements, and (ii) the limit of liability or limit of payment provisions of subsection 170 e.

"(2) With respect to any public liability action arising out of or resulting from an extraordinary nuclear occurrence, the United States district court in the district where the extraordinary nuclear occurrence takes place, or in the case of an extraordinary nuclear occurrence taking place outside the United States, the United States District Court for the District of Columbia, shall have original jurisdiction without regard to the citizenship of any party or the amount in controversy. Upon motion of the defendant or of the Commission or the Secretary, as appropriate, any such action pending in any State court or United States district court shall be removed or transferred to the United States district court having venue under this subsection. Process of such district court shall be effective throughout the United States.

"(3) With respect to any public liability action arising out of or resulting from any extraordinary nuclear occurrence, the Commission, or Secretary, as appropriate, shall, and any other indemnitor or other interested person may, submit to the district court having original jurisdiction pursuant to subparagraph (2), a plan for the disposition of pending claims and for the distribution of remaining funds available. Such a plan shall include an allocation of appropriate amounts for personal injury claims, property damage claims, and possible latent injury claims which may not be discovered until a later time and shall include establishment of priorities between claimants and classes of claims, as necessary to insure the most equitable allocation of available funds. Such court shall have all power necessary to approve, disapprove, or modify plans proposed, or to adopt another plan; and to determine the proportionate share of funds available for each claimant. The Commission or the Secretary, as appropriate, any other indemnitor, and any person indemnified shall be entitled to such orders as may be appropriate to implement and enforce the provisions of this section, including orders limiting the liability of the persons indemnified, orders approving or modifying the plan, orders staying the payment of claims and the execution of court judgments, orders apportioning the payments to be made to claimants, and orders permitting partial payments to be made before final determination of the total claims. The orders of such court shall be effective throughout the United States.".

SEC. 10. Section 170 o. of the Atomic Energy Act of 1954, as amended, is amended to read as follows:

"o. Whenever the United States district court in the district where a nuclear incident occurs, or the United States district court for the District of Columbia in case of a nuclear incident occurring outside the United States, determines upon the petition of any indemnitor or other interested person that public liability from a single nuclear incident may exceed in any year the amount of financial protection available in that year under subsection 170 b., or the limit of liability under subsection 170 e. (2), as appropriate:

"(1) Total payments made by or for all indemnitors as a result of such nuclear incident shall not exceed 33⅓ per centum of such amount of financial protection, or fifteen per centum of such limit of liability, as appropriate, without the prior approval of such court.

"(2) The court shall not authorize payments in excess of 33⅓ per centum of such amount of financial protection, or 15 per centum of such limit of liability, as appropriate, unless the court determines that such payments are or will be in accordance with a plan of distribution which has been approved by the court or such payments are not likely to prejudice the subsequent adoption and implementation by the court of a plan of distribution pursuant to subparagraph (3) of subsection (n).

"(3) In situations where public liability is limited by the provisions of subsection 170 e. (2), the Commission or the Secretary, as appropriate, shall, within ninety days after a court shall have made such determination, deliver to the Congress a supplement to the report prepared in accordance with subsection 170 i. of this Act, setting forth the estimated requirements for full compensation and relief of all claimants, and recommendations as to the relief to be provided.".

SEC. 11. Section 170 p. of the Atomic Energy Act of 1954, as amended, is amended to read as follows:

"p. In the event of two or more nuclear incidents for which public liability claims require payment from the industry retrospective rating plan under subsection 170 b., and for which there are outstanding public liability claims:

"(1) The maximum amount of private insurance available in any year for all nuclear incidents under the industry retrospective rating plan shall be apportioned equally, in the manner prescribed herein, among the nuclear incidents in that year to which the industry retrospective rating plan applies. The maximum amount of private insurance available in any year under the industry retrospective rating plan to satisfy the aggregate public liability claims resulting from a single nuclear incident shall be the quotient obtained by dividing the maximum amount of private insurance available in that year by the number of nuclear incidents to which the industry retrospective rating plan applies in that year. In the event that the aggregate public liability claims resulting from any single nuclear incident(s) in any year are less than the quotient for that year, the amount of private insurance constituting the difference shall be apportioned equally, in the same manner, among the remaining nuclear incidents for which the aggregate public liability claims exceed the quotient for that year.

"(2) In the event that the amount of insurance available in any year under the industry retrospective rating plan for public liability claims for a nuclear incident is reduced, pursuant to subparagraph (1) of this subsection, from the amount specified originally in the plan of the district court prepared pursuant to subsection 170 n. (3), such district court shall modify the original plan as necessary to insure the most equitable allocation of available funds. For purposes of such modifications, the district court shall have the same powers and authority as in adopting the original plan.".

SEC. 12. Section 170 of the Atomic Energy Act of 1954, as amended, is amended by adding the following new subsection at the end thereof:

"q. The Commission and the Secretary shall submit to the Congress by August 1, 1998, detailed reports concerning the need for continuation or modification of the provisions of this section, taking into account the condition of the nuclear industry, availability of private insurance, and the state of knowledge concerning nuclear safety at that time, among other relevant factors, and shall include recommendations as to the repeal or modification of any of the provisions of this section.".

DEFINITIONS

SEC. 13. (a) Subsection s. of section 11 of the Atomic Energy Act of 1954, as amended, is amended by adding at the end thereof the following: "For purposes of those activities that the Secretary of Energy is authorized or directed to undertake, pursuant to this Act or any other law, that involve the risk of public liability for a substantial nuclear incident as a result of the storage or disposal of spent nuclear fuel, high-level radioactive waste, or transuranic waste, including the transportation of such materials to or from a storage or disposal site or facility, or test and evaluation facility, the treatment or packaging of such materials to be stored in, disposed of, or used in any such a site or facility, and the identification, development licensing, construction, operation, decommissioning, and post-decommissioning maintenance and monitoring of such site or facility, the Secretary shall, to the extent that such activities are not undertaken by contract, be considered as if the Secretary were a contractor with whom an indemnity agreement has been entered into pursuant to subsection d. of this Act.".

(b) Subsection w. of section 11 of the Atomic Energy Act of 1954, as amended, is amended to read as follows:

"w. The term public liability means any legal liability arising out of or resulting from a nuclear incident, except: (i) claims under State or Federal workmen's compensation acts of employees of persons indemnified who are employed at the site of and in connection with the activity where the nuclear incident occurs; (ii) claims arising out of an act of war; (iii) whenever used in subsection 170 a., c., and k., claims for loss of, or damage to, or loss of use of property which is located at the site of and used in connection with the licensed activity where the nuclear incident occurs; and (iv) claims for punitive damages. Public liability also includes damage to property of persons indemnified, *Provided,* That such property is covered under the terms of the financial protection required, except property which is located at the site of and used in connection with the activity where the nuclear incident occurs.".

(c) Section 11 of the Atomic Energy Act of 1954, as amended, is amended by adding the following new subsection at the end thereof:

"dd. The term Nuclear Waste Fund means the Nuclear Waste Fund established in section 302 of the Nuclear Waste Policy Act of 1982 (42 U.S.C. 10222).".

CONFORMING AMENDMENTS

SEC. 14. Subsections g., j., and m. of section 170 of the Atomic Energy Act of 1954, as amended, are amended by inserting after "Commission" wherever it appears the following: "or the Secretary, as appropriate,".

Sec. 15. Section 170. a. of the Atomic Energy Act of 1954, as amended, is amended by striking in the first sentence "the Commission" and inserting in lieu thereof "the Nuclear Regulatory Commission (hereinafter in this section referred to as "the Commission").

AMENDMENT NO. ______________ Ex. ________ Calendar No. ________

Purpose: To amend the "Price-Anderson Improvement Act of 1985"

IN THE SENATE OF THE UNITED S

S. ______________________

H.R. ______________________

(title) ______________________

AMENDMENT NO. 770

By STAFFORD

Bill/Res. No. S. 1761

GPO : 1984 - 39-921

( ) Referred to the Committee on ______________
and ordered to be printed

( ) Ordered to lie on the table and to be printed

INTENDED to be proposed by Mr. Stafford

Viz:

In section 5, after "e.(1)", insert "(A)"; and, after "source of payments for public liability claims." insert the following:

"(B) Nothing in this section shall limit the right of any person that has paid or will pay deferred premiums under the industry retrospective rating plan required in subsection 170b. to recover, under applicable state law, deferred premiums from any person who may be liable for public liability, notwithstanding any indemnification of persons indemnified under this section. The waiver of defenses provision of subsection 170n. shall not apply to actions for such recovery.".

In section 13(b), strike "and" before "(iv)"; and after "claims for punitive damages" insert the following: "; and (v) claims for recovery of deferred premiums as provided in subsection 170e.".

REAUTHORIZATION OF THE PRICE-ANDERSON ACT

WEDNESDAY, OCTOBER 23, 1985

U.S. SENATE,
COMMITTEE ON ENVIRONMENT AND PUBLIC WORKS,
SUBCOMMITTEE ON NUCLEAR REGULATION,
Washington, DC.

The subcommittee met, pursuant to notice, at 9:36 a.m., in room SD-406, Dirksen Senate Office Building, Hon. Alan K. Simpson (chairman of the subcommittee) presiding.

Present: Senators Simpson, Stafford, Domenici, Symms, Hart, and Mitchell.

OPENING STATEMENT OF HON. ALAN K. SIMPSON, U.S. SENATOR FROM THE STATE OF WYOMING

Senator SIMPSON. Good morning.

We are going to continue our hearings on reauthorization of Price-Anderson, with our emphasis today on the application of the Price-Anderson Act to NRC licensees, and in particular the commercial reactor licensees.

In late 1983, the NRC submitted to the Congress a report entitled "The Price-Anderson Act—The Third Decade." In that report was the recommendation that the Congress extend the Price-Anderson Act. In addition, the Commission recommended a number of what I consider to be fundamental changes in the way in which the act works.

That report together with three bills now pending before the committee, one introduced by Senator Hart, one by Senator McClure and myself, and one introduced by Senator Stafford, will be the focus of today's hearings.

After visiting and consulting with my colleagues, and reading the various bills that have been introduced, I think that one might fairly say that we are all interested and we are all striving for efficient, equitable, comprehensive, and reliable means of dealing with the consequences of a major nuclear accident and event.

As indicated, various proposals are on the table suggesting ways to achieve those objectives. We will be very interested in the comments of the witnesses on all of the proposals. I approach this issue with a very willing hand and open mind, a willingness to express considerable flexibility within the subjectives of efficient, equitable, comprehensive, and reliable that I just already noted.

I have examined the Commission's report in careful detail. I do have a number of questions I think we need to discuss, not only on the mechanics, but the policies that underline that proposal. This committee well knows, from its experience with Superfund—we grappled with this one in this place—questions of liability can often prove to be not only very complex to resolve, but also very highly controversial.

I hope I don't sniff the aroma of Superfund revisited here. If so, indeed, it will prove again that there is eternal life in these areas of staff effort, with a patina of that. The elixirs that give rise to that are beyond description.

I must say that I have a degree of skepticism if we are to just simply approach a fundamental change in a system that has worked by and large, at least, as it was intended. On the other hand, I want you all to be aware, I do think that improvements can be made in Price-Anderson to make it function more effectively. If those can be accomplished without distorting the careful balance that was originally struck when this act was enacted, and also having some eye out toward the issue of the equities, both toward the innocent victims and also with the innocent utilities. If we can manage to strike some balance in there because innocence runs both ways in that area, especially when we are dealing with this issue.

If we can get toward the equities of both the accident victims and those required to contribute, who pay the public liability claims, then I think we may have some considerable success. I am certainly ready to hear, listen, and hope we can resolve something appropriate for the public and the industry, and even, oddly enough, the United States of America, that might be worthwhile, too.

With that, we will proceed with the first panel which is the Nuclear Regulatory Commission. It is a great privilege to have you here, Mr. Chairman, accompanied by Commissioners Jim Asselstine, Fred Bernthal, Tom Roberts, and Admiral Zech.

That is the first panel, and if you would proceed please, we will be pleased to take your testimony.

STATEMENT OF HON. NUNZIO J. PALLADINO, CHAIRMAN, NUCLEAR REGULATORY COMMISSION, ACCOMPANIED BY: COMMISSIONER THOMAS M. ROBERTS; COMMISSIONER JAMES K. ASSELSTINE; COMMISSIONER FREDERICK M. BERNTHAL; AND COMMISSIONER LANDO W. ZECH, JR.

Mr. **Palladino**. Thank you, Mr. Chairman. The other members of the Commission and I are pleased to appear before the subcommittee. We hope that a full expression of our views will assist you in considering the bill before you relating to extension of the Price-Anderson Act. With your permission, I would like to submit the Commission's prepared statement for the record and highlight its major points briefly.

In 1983, as you noted, we submitted to Congress a report entitled, "The Price Anderson Act—The Third Decade," identified as NUREG-0957. The report remains basic to our discussion of extending Price-Anderson and the Commission's current position.

The Commission has continued to give particular attention to the liability limitation issue, clearly the most difficult and controversial of all the issues associated with extending the act.

On this issue, the 1983 report recommended amending the act to substitute an annual limitation on liability for the present absolute limitation and to raise the maximum retrospective premiums that can be charged for any existing or future plant from the present $5 million per reactor per incident to $10 million per reactor per year.

Several criticisms of this approach have been instructive and persuasive to the Commission majority. One criticism is that this approach would unfairly change the entire balance of equities supporting the Price-Anderson system by shifting the full costs of a catastrophic nuclear accident to utilities who committed to the nuclear option under a vastly different understanding.

The second fundamental criticism is that public utility customers in one region of the country would incur prolonged, unlimited financial obligations because of an accident elsewhere.

The Commission recognizes that it is Congress which must balance the equities and that various alternatives, based on different balances, might provide adequate assurance of payment of all public liability claims. A majority of the Commissioners, including Commissioners Bernthal, Roberts, and Zech, believe that of the proposals now before the Congress, S. 1225 offers the best approach.

S. 1225 would continue the Price-Anderson system for NRC's large power reactor licensees and would provide reasonable assurance of equitable and timely compensation for those who may be injured in any major nuclear powerplant accident. In the highly improbable case of an accident that exhausts all financial protection mandated in the bill, S. 1225 provides detailed procedures for Congress to determine whether and, if so, what future action is desirable.

The Commission believes this detailed mechanism for review and action is preferable to open-ended exposure of a utility's assets to liability claims.

The Commission supports the provision of S. 1225 that provides equivalent financial protection to the public in the event of a nuclear accident for DOE contractor activities. It also supports the clear statement that Price-Anderson covers all high-level radioactive waste transportation, storage, and disposal activities, and the provision of such coverage through DOE. In addition, the Commission supports a 25-year extension of the act as contained in S. 1225.

It is important to emphasize that a majority of the Commission still supports the remainder of the recommendations of the 1983 report, including extension of the act itself, retention of the present statutory language for the finding of an extraordinary nuclear occurrence, and extension of the statute of limitations for filing a public liability claim from 20 to 30 years.

With respect to S. 445, I will just comment that we do not favor its provision to eliminate the liability limit because it is far from clear to what extent additional funds would be available to pay claims under an unlimited liability regime. Nor do we support the elimination of the ENO concept or the extension of the statute of limitations beyond 30 years.

The ENO finding is useful to establish a definitive basis for valid claims and to conserve resources to pay for these claims. The inherent difficulties in proving latent injuries were caused by a nuclear event argue for some final cutoff to litigation once a generous allowance has been made for accommodating them.

Let me turn next to S. 1761. In general, S. 1761 is consistent with the main recommendations for legislation proposed in NUREG-0957, in particular the recommendation, which Commissioner Asselstine and I continue to support, to eliminate Price-Anderson's absolute aggregate liability limit provision.

Briefly, S. 1761 limits the funds paid out for public liability in any one year to the total annual retrospective premiums assessed. This provision would seem to have the same effect as the 1983 recommendation to impose an annual limit on liability which Commissioner Asselstine and I still favor.

The earlier Commission recommendation to raise the maximum retrospective premium is met in S. 1761's authority for the Commission to establish the maximum premium at not less than $10 million nor more than $15 million per reactor per year.

S. 1761 also contains a number of provisions which appear to implement the major thrusts of NUREG-0957. For example, S. 1761 eliminates congressional review following nuclear incidents at reactors. Congressional review would be unnecessary where retrospective payments continue until all damages are paid.

S. 1761 also provides for the apportioning of retrospective premiums in the event of multiple nuclear incidents in any one year. It approximately doubles the percentage of funds that can be paid without prior court approval.

The Commission as a whole supports a new element of S. 1761 that explicitly excludes coverage of punitive damages by the Price-Anderson system. Moreover, the Commission strongly believes that at the very least payment of punitive damages should not be allowed to displace payment for compensatory damages under any Price-Anderson system that Congress may adopt.

The Commission does not support the proposed amendment to S. 1761 to permit a lawsuit by any utility to recover funds that it paid as a retrospective premium from any person who may be liable for the damages of the nuclear accident, including the utility otherwise indemnified by Price-Anderson. Such an amendment, if adopted, would undercut the Price-Anderson system so that a utility or other indemnified person would be exposed to substantial financial liability with no known means of securing protection.

I should note that while Commissioner Asselstine and I continue to support the recommendations of NUREG-0957, I would be willing to consider other alternatives which have as their objective adequate assurance that all public liability claims could be paid, particularly if the Commission's 1983 recommendation is not going to be accepted by Congress.

That concludes my remarks. We would be pleased to respond to any questions that you may have.

Senator SIMPSON. Thank you very much, Mr. Chairman.

Now, I would ask the other Commissioners if they could briefly state their views.

Mr. ASSELSTINE. Mr. Chairman, I have a few comments on the Commission's testimony.

Senator SIMPSON. Commissioner Asselstine.

STATEMENT OF JAMES K. ASSELSTINE, COMMISSIONER, NUCLEAR REGULATORY COMMISSION

Mr. Asselstine. Mr. Chairman, my comments focus principally on the issue of whether to retain, modify, or eliminate the limitation on liability not contained in the Price-Anderson Act. I also intend to touch briefly on the waiver of defenses provision in the act. My comments will focus on the provisions of the act which apply to NRC-licensed commercial power reactors.

As Chairman Palladino has noted, a key feature in the Commission's report to the Congress a year-and-a-half ago was the Commission's recommendation that the Congress replace the present absolute limitation on liability in the act with an annual limitation on liability.

Under this approach, deferred premiums of $10 million for each operating reactor would be collected each year until all public liability claims resulting from a nuclear accident have been paid. The Commission's 1983 recommendation is very similar to the approach contained in S. 1761.

A unanimous Commission endorsed this annual limitation on liability approach as the best way of satisfying the public policy objectives of the Price-Anderson Act. I might add that the Commission made this recommendation that the Congress adopt an annual limitation on liability after carefully considering a range of other options, including eliminating the limitation on liability altogether and retaining a limitation on the industry's liability, absent further congressional action, at some higher level than the $640 million in financial protection now provided under the act. The latter option is quite similar to the approach contained in S. 1225.

A majority of the Commission has now chosen to change its position on the Commission's previous recommendation for an annual liability limit and instead to recommend that the Congress retain an absolute limitation on liability with a limited increase in the amount of financial protection for the public.

I disagree with the Commission's change in position, Mr. Chairman. I continue to believe that the present limitation on liability in the act should be eliminated and should be replaced with an annual liability limit. I, therefore, support the approach taken in S. 1761. In my view proposals to retain, eliminate, or modify the limitation on liability should be judged using the following four criteria:

First, does the proposal assure full compensation to the victims of a nuclear accident?

Second, does the proposal provide an assured and timely source of funds to pay public liability claims?

Third, does the proposal avoid imposing the costs of an accident at a nuclear powerplant on the Federal Government?

Finally, does the proposal avoid imposing a catastrophic financial burden on individual nuclear facilities?

An annual liability limit is contained in S. 1761, as recommended by the Commission in 1983, and in my view, meets each of these tests. No matter how large the consequences of a nuclear accident, sufficient funds would automatically be available to pay all valid public liability claims.

These funds would come from the nuclear utilities, and the only remaining Federal role would be as guarantor in the event that a utility failed to pay its deferred premium. Substantial funding would be available to pay claims in the first year, and a flow of funds would be available in succeeding years to pay claims arising from latent injuries. Finally, by spreading the cost over succeeding years, the financial health of the utilities should not be jeopardized.

Unfortunately, the same cannot be said for the Commission majority's new proposal. Retaining the liability limit would limit the financial impact of a nuclear accident on the utilities owning and operating nuclear powerplants, but it would also provide insufficient funds to pay all the valid claims of the victims of some nuclear accidents.

At least two of my colleagues are advocating a liability limit of about $2 billion, an amount similar to the funding which would be available absent further congressional action under S. 1225. While this is better than the $640 million now available under the act, it is not sufficient to cover the costs of all possible nuclear accidents.

As the Commission's rather lengthy Indian Point proceeding made clear, there is a group of accidents which, although unlikely, could result in damages well in excess of the approximately $2 billion recommended by some of my colleagues, and made directly available under S. 1225. If such an accident were to occur, the funds available under the act would not be sufficient to compensate fully all victims.

In that situation, the Congress would have to decide whether to provide further compensation to the victims of the accident and how to fund that additional compensation. Dealing with that question in the aftermath of a catastrophic nuclear accident will not prove to be an easy task.

Indeed, one need look no further than the congressional consideration a few years ago of proposals to fund the cleanup of Three Mile Island unit 2 to see the difficulties in trying to construct a funding scheme after an accident has occurred. The difficult arguments concerning Federal funding and funding by other utilities and their ratepayers who had no part in causing the TMI accident, as well as the resulting legislative impasse, are all too familiar to the members of this subcommittee.

If we should learn one lesson from the TMI-2 cleanup experience, it is that we should endeavor to establish in advance a framework for compensating the victims of a nuclear accident that will provide full compensation for the public for all possible accident situations.

While the expedited congressional review procedures contained in S. 1225 may result in an early vote in the House and Senate on a supplemental funding scheme in the event of a catastrophic nuclear accident, they are not likely to make the issues any less controversial or the available choices more palatable, and the result could be another impasse.

Having provided by law that the industry's liability would be fixed at about the $2 billion, and with new indemnity contracts in effect which reflect this limited liability, I think that it will be difficult for the Congress to obtain additional funding from the industry after an accident has occurred. Thus, it is likely that additional funding to pay public liability claims—funding which could run into the billions of dollars—would have to come from the Federal Treasury.

Finally, with a fixed liability limit, some judgment would have to be made on how much of the available funds should be set aside to pay future claims for latent injuries when those injuries become apparent. Apportioning of the available funds has the potential to shortchange either the victims with immediate injuries or those with latent injuries, or both.

Indeed, given the need to set aside a portion of the funds available under an absolute liability scheme such as that contained in S. 1225 to pay claims for latent injuries, I doubt whether that bill would provide much, if any, additional funding to pay early public liability claims than would be available in the first year alone under the annual limit on liability approach recommended by the Commission in 1983, and contained in S. 1761.

As the Commission recognized in its report to the Congress in December 1983 these disadvantages argue strongly against retaining the absolute limitation on liability and in favor of the annual liability limit approach.

Mr. Chairman, I have one final comment on the extraordinary nuclear occurrence, or ENO, concept in the Price-Anderson Act. Our experience in attempting to determine whether TMI-2 was an extraordinary nuclear occurrence identified a number of difficulties with our criteria for making the ENO determination. While the Commission has published a proposed rule with three possible options for improving our ENO criteria, I am not yet convinced that any of these rulemaking options will fully resolve the problems, nor am I convinced that the ENO concept and the preservation of the legal defenses that are provided under the act for nuclear incidents which do not constitute an ENO necessarily provide a fair and equitable means for deterring frivolous claims, which is the principal basis used by the Commission majority in support of retaining the present approach.

In fact, I suspect that these legal defenses can serve to bar recovery of legitimate as well as frivolous claims, and can result in nonuniform results depending upon the location of the accident.

For these reasons, former Commissioner Gilinsky and I recommended in the Commission's 1983 report that the Congress eliminate the ENO concept from the act and require the waiver of defenses for all nuclear incidents. Our recommendation was similar in many respects to the provisions in sections 3 and 4 of S. 445.

This change would establish no fault coverage for all nuclear incidents, would assure more uniform determinations on recovery for public liability claims from nuclear incidents and would eliminate the difficulties in establishing practical and workable criteria for making ENO determinations. I continue to believe that these benefits support the elimination of the ENO concept and the extension of the waiver of defenses provision to all nuclear incidents.

Thank you.

Senator SIMPSON. Thank you very much.

Did you have a comment, Commissioner Bernthal?

STATEMENT OF FREDERICK M. BERNTHAL, COMMISSIONER, NUCLEAR REGULATORY COMMISSION

Mr. BERNTHAL. Yes, Mr. Chairman. As one of those who has changed his mind, and proud of it, I would like to take a minute or two to explain why.

Mr. Chairman, there is little doubt that adoption of the Commission's original Price-Anderson recommendations would eventually provide sufficient funds to pay all claims that might arise from a nuclear accident. And while I may consider the basic principle of that proposal sound, I have come to be convinced that it is predicated on an unrealistic world.

Perhaps most significantly, in the wake of recent events in the chemical industry and elsewhere, I have developed a profound and decisive skepticism over the wisdom of dangling an annually renewable basis $1 billion before the noses of some of this country's attorneys at tort law. I can envision the creation thereby of a whole new industry and special interest group, legions of lawyers, sustained forever by an annually renewable $1 billion Price-Anderson stipend.

Thus, my views on this subject have departed from the Commission's 1983 position in one major respect and with good reason. There is no doubt that if an increase in the current retrospective premium of $5 million per incident should be increased to an amount two, three, or maybe even four times as large, for the reasons I have outlined, I now believe that provision should apply for a limited period of time after an accident.

Briefly, I have concluded that any new legislation should achieve two primary objectives: First, I would recommend that the pool of money available to pay compensatory damage claims be larger than suggested by some, and perhaps as large as $5 billion. Such a fund would assure that victims of an accident could receive compensation equal to or greater than that which would exist if there were so-called unlimited liability. The free market version of such unlimited liability would in reality be limited with resounding and painful finality by the net worth of the entity responsible for an accident, were normal tort principles to govern recovery.

Second, I believe that the goal of any legislation should be collection of the retrospective premiums in a timely manner. A one-time assessment may well be too large for many utilities to handle. However, if our staff is correct in its judgment that the utilities would be able to handle up to $20 million per year, a fund as large as $5 billion could likely be amassed.

Among other benefits, such a plan would effectively restrict the magnitude of fees payable to counsel for the injured, thereby limiting the time practitioners of tort law would otherwise have to ply their trade in the event of a serious accident. This consideration is a plain attempt to nip in the bud a germinating problem that unchecked will grow to destroy the concept of streamlined administrative compensation systems such as Price-Anderson. As I have indicated, this lies at the heart of my most recent thoughts on this subject.

Indeed, in the past few years, the application of tort law to large accidents of major public consequence has exhibited a disturbing evolution that is compelling, I think, to anybody who cares to observe. It would be a mockery of the term "full compensation" if fully one-third of the damages awarded from Price-Anderson funds were to wind up in the coffers of lawyers representing those victims. Under the Commission's 1983 proposal, the legal profession would continue to reap these now almost customary large monetary benefits from funds intended to compensate the victims of a disaster.

In modifying Price-Anderson, therefore, Congress should consider mandating a system to provide the maximum possible expeditious compensation to victims of a nuclear accident, compensation that is unencumbered either by the failings of a deteriorating tort law system, or by the inclination of some practitioners of that law.

Finally, I recognize and strongly endorse the practical reality and probable necessity of ultimate congressional involvement in the event of any accident of truly catastrophic proportions—I think that this is simply facing reality—including a nuclear accident that might exhaust all initial coverages available even under an amended Price-Anderson.

Some have long argued that the nuclear enterprise couldn't survive without the subsidy they saw implicit in the often maligned Price-Anderson legislation. But time has shown that no funds were ever paid by the Federal Government in connection with its Price-Anderson liability. In fact, the Government's share of that liability has steadily diminished to zero as new powerplants have come on line in recent years.

In fact, events of the past few years, and the major and real problems facing the chemical industry and the Environmental Protection Agency, I might add, lead to the ironic conclusion that instead of being an embarrassing stepchild of the nuclear enterprise, Price-Anderson may well become a model for rapid, assured compensation of the public in the case of catastrophic accidents—chemical, nuclear, or whatever.

The message being learned is that there is no such thing as unlimited liability for any industry, just as there is no such thing as unlimited compensation in real life. I believe time is proving Price-Anderson to be enlightened landmark legislation to protect the public from years of litigation, rather than to protect the industry from a bankruptcy that would still not compensate an injured public.

I do want to comment on the issue of ENO, since Commissioner Asselstine has made a remark or two on that. In connection with the Commission's consideration of this issue, I also urge the major modification of the Commission's regulations defining the extraordinary nuclear occurrence. Even Three Mile Island fell far short of qualifying as an ENO, but it did expose a number of fundamental flaws in the current definition of the term.

Quite simply, in my judgment, an extraordinary nuclear occurrence should be determined instrumentally by off-site surface contamination dose rate, or by dose integration during the first 24 hours following a release—a simple, inexpensive, and definitive solution to what is now a very complicated problem. The Commission's current defining regulation is a lawyer's dream and a plaintiff's and licensee's nightmare.

Finally, I cannot leave the subject of compensation without commenting briefly on the *Silkwood* case reviewed not long ago by the Supreme Court. In a five to four decision, the Court held that a State may award punitive damages against an entity regulated by the NRC for actions a jury finds negligent, even though all NRC regulations may have been complied with.

In other words, every jury in America can now theoretically serve as its own Nuclear Regulatory Commission. As the original judge in the *Silkwood* case so memorably charged his jury, "Your duty is to determine what constitutes the exercise of reasonable care in handling plutonium."

Finally, in my judgment, Congress never intended the Atomic Energy Act to deny an injured person the opportunity to recover punitive damages in cases where NRC standards have been violated. But Congress should make clear that punitive damages are not to be paid with Price-Anderson insurance funds. If a licensee can insure against punitive damages, such damages lose all deterrent value as punishment.

Preserving this last important principle may require that Congress wade into the noxious swamp of State tort law. As a minimum, Congress should seriously consider reaffirming in the Atomic Energy Act the principle missed by the Supreme Court in *Silkwood,* that a licensee fully in compliance with NRC regulations is not liable for punitive damages, a principle made a shambles by the Supreme Court's erroneous acceptance in *Silkwood* of a lower court judge's instructions to the jury.

That ends my comments, Mr. Chairman.

Senator SIMPSON. Thank you very much.

Did you wish to have a comment?

STATEMENT OF LANDO W. ZECH, JR., COMMISSIONER, NUCLEAR REGULATORY COMMISSION

Mr. ZECH. If I may, Mr. Chairman, I have a joint statement for Commissioner Roberts and myself.

The Nuclear Regulatory Commission's 1983 Price-Anderson report recommended extension of the Price-Anderson Act, and included a number of suggestions for its improvement.

For Commissioner Roberts and I, the fundamental objective in recommending the extension of the Price-Anderson Act, and the inclusion of a liability limit, is to assure that Price-Anderson would continue to fulfill its primary objective of providing timely and full compensation to anyone injured as a result of an accident covered by it. This objective is paramount.

Let me say at the outset that neither Commissioner Roberts nor I totally repudiate the NRC report, nor disagree with much of Chairman Palladino's statement. However, we are not personally confident that unlimited liability, even with an annual cap, is the best approach.

Since the NRC report was submitted in 1983—I should point out that I was not a Commissioner in 1983—there has been a great deal of attention given to the nuclear liability issue. Several bills are now pending before Congress to extend Price-Anderson and modify it in one respect or another. Moreover, during this period, we have seen much activity relating to public liability issues involving asbestos induced injuries and toxic wastes, and unfortunately there was the tragic accident at Bhopal, India. The Bhopal accident underscores the value of having a system such as Price-Anderson to provide prompt compensation.

The Commission also had a public meeting on June 20, 1985, where supporters of the different options of the extension of the Price-Anderson Act now before Congress expressed their views to the Commission. We sincerely appreciate the time and effort of all the representatives who presented their views at our June 20 Commission meeting on the Price-Anderson Act. We understand their positions and respect their views.

After reflecting on these events, Commissioner Roberts and I reaffirm our commitment to the objective of assuring that timely and full compensation is available for those injured in the unlikely event of a nuclear accident covered under the Price-Anderson Act.

To us, the establishment of a system whereby contributions to the compensation fund are made over an infinite period of years appears incompatible with ensuring that adequate funding is available to make timely compensation payments. Unlimited liability, coupled with waiver of defenses and an extended statute of limitations, could encourage future litigation or threats of litigation, and usage of the fund to reach what may be unjustified settlements long after an alleged nuclear incident.

We do not believe that unlimited liability will necessarily provide any better assurance that injured members of the public will receive timely and full compensation. It seems to us that the potential for unlimited liability over a long period of time, more than likely than not, would result in more aggressive defensive efforts to resist timely payments.

In our judgment, there must be some limit to the size of the compensation fund, otherwise we are unable to understand why there would be any incentive for utilities to be willing to share in unlimited industrywide liability for accidents at a particular utility's facility. This is especially so for a utility with a large number of operating reactors. We are unable to understand why this sound public policy for public utility customers in one region of the country to incur prolonged, unlimited financial obligations because of an accident elsewhere.

Therefore, we believe that the objective of full and timely compensation to injured members of the public would be better served by an approach along the following lines: Assure that a sizable compensation fund with a limitation of liability is available in a timely manner.

We have no formula to calculate what the size of the compensation should be. The fund should be set as high as equitable to all participants involved. We have no particular views on what the dollar amount should be. Nevertheless, provisions should be in place which would assure that the fund would consist of the sum of the private insurance available, reasonable retrospective payments, and possible further assessments. A mil-per-kilowatt assessment on nuclear plants is one alternative.

Provision should also be made for the fund to increase at appropriate intervals to accommodate any significant increases in the rate of inflation.

In our judgment, the probability of an accident that would exhaust such a fund is highly unlikely. However, since such possibility cannot be ruled out with absolute certainty, we believe that the legislation should include an appropriate mechanism for Federal Government consideration of the appropriate action to be taken, considering all of the relevant circumstances, in the event a catastrophic accident does in fact occur, and there is reason to believe that the available fund is not adequate to provide full and timely compensation.

Perhaps the Bhopal accident, and the resulting rush to the courthouse, is the best evidence of the need for the Congress to be involved in determining what is the most appropriate response to such a catastrophic event. It is our understanding that S. 1225 is consistent with the recommendations we have just described. We can support it or any other alternative that ensures the public financial protection by having available a fund to pay them timely and full compensation.

Thank you, Mr. Chairman.

Senator SIMPSON. Thank you very much. I appreciate your testimony very much. The comments of all the Commissioners have been very provocative and diverse.

Recently, when the staff briefed the committee on the NRC report, they advised us that in preparing this report, the Commission focused on whether it was equitable for the victims of an accident, but did not consider whether it was equitable for the utilities that would be required to pay the annual assessment.

That is confirmed in your report where you point out that the approach would assure a "reliable source of funds." I assume that to mean never ending, for compensating victims, but it doesn't discuss the potential inequities associated with just who is required to pay this reliable source of funds. I would ask why staff did not consider whether this approach was equitable for the utilities, most of them who will be innocent, I believe that is the phrase we use here, and that are required to supply literally an endless stream of money. Would you tell me about those equities?

Mr. PALLADINO. I will give you a couple of comments, and then perhaps I ought to turn it back to the staff.

The concept of sharing risk is a concept that is rather basic to insurance, and those who don't have accidents eventually always pay for those who do have accidents. Also, we have what might appear to be an inequity in the distribution of costs to those who have a lot of nuclear powerplants, and that is inherent in the present arrangement. The only thing we are talking about now is how much.

The extent to which it was considered by the staff, I would turn over to the staff, and maybe Mr. Saltzman, who was one of the authors of our NUREG-0957, could address it.

Senator SIMPSON. If you could, briefly.

Mr. SALTZMAN. I think the chairman basically stated the way we looked at it. The basic equity question was settled in 1975, in those amendments, when it was agreed that the industry would pay the retrospective premiums for the absolute limitation of liability.

We looked to the extension of an annual limitation of liability as simply being an extension of that principle. The new equity question is whether the utilities can afford to pay that type of annual fee year after year for as long as claims may come in.

Mr. ASSELSTINE. Mr. Chairman, I wonder if I could add a comment on this. I think that what Mr. Saltzman and the chairman have said is pretty accurate, it reflects at least the Commission's consideration of the issue.

We did look at the potential impact on individual utilities in adopting the annual limitation on liability scheme or approach in 1983. What we wanted to do was avoid imposing a catastrophic financial burden on any individual utility, and that is why we opted for the annual limitation on liability rather than simply eliminating the limit on liability altogether.

I think that basically what you have, in terms of the equity, is a question of, since private insurance is not available in the amounts needed to pay all the claims, is it better or more equitable to have a risk-spreading insurance scheme, a self-insurance scheme that spreads the cost among all of the utilities, or is it more equitable to have those costs borne either by the victims of the accident or by the taxpayers.

I think all of the Commissioners were of the view, back in 1983, that it was more equitable to impose those costs on the industry, recognizing that some utilities that were not responsible for an accident would have to share in paying the cost of those accidents, that it was more equitable to do that than to impose those costs either on the victims of an accident or on the taxpayers.

Senator SIMPSON. Let's revisit that word "insurance." You have noted, and the chairman has noted, that this is just like insurance. I practiced law for 20 years, would somebody at this table tell me, do you know of any insurance policy where the insured party is, one, required to carry the insurance; and two, liable for open-ended payments of an indeterminate amount, and an indeterminate duration, to pay for an accident that is caused by someone else insured under the policy? Does anyone know of one like that?

Mr. ASSELSTINE. I think that there are certainly at least some analogies in the property field.

Senator SIMPSON. Do you know of a policy like that?

Mr. ASSELSTINE. The property insurance approaches that have been used to insure the value of a plant——

Senator SIMPSON. Do you know of a policy like that, that is the question I am asking.

Mr. ASSELSTINE. I don't know if there are policies, but the insurance requirements that we have imposed, and that the industry has adopted to protect the value of the plant itself are in some respects similar, although they do have limits on the time involved.

Senator SIMPSON. Indeed, they do, because we have addressed this in Superfund. I think some of the committee members, and certainly the staff were appalled when we had insurance companies come before us as witnesses to say, "We won't insure that." It was almost like we wanted to say, "But you have to." Their response was, "We are not a charity."

Now we have our choice there. We don't get to play the game of theory and romance, we have to go do the hard voting. There are insurance companies that insure because they are actuarially observing what their limits are and what their responsibility is, and they can't do that when they are faced with what is obvious here as an open-ended payment of an indeterminate amount. I don't see how that can be, even if the other party is grossly negligent or reckless, or whatever it may be.

That is not to get testy, it is to get realistic. So this is not insurance, and here the term insurance is discussed and I must say, I think we had best get back to reality.

Then you come to another interesting thing, which is curious in this committee. Look at what the various States are going to pay out of their own pocket, or the utilities in the various States who are involved, are going to pay out of their own pocket just with this group on this committee. It is very interesting, and we always pay attention to that on this committee.

According to my back-of-the-envelope calculations, the consumers in three States will wind up paying about 13 percent of the cost of any accident. That is $60 million a year for New York consumers, and I want my colleague from New York to be here when we get to that figure, because that is who is going to pay it; $35 million a year for New Jersey consumers, and I want Frank here to hear that, and how that is going to be passed on; $25 million for Minnesota consumers, and that is the way it works, and that is 1 year. That strikes me as an extraordinary sum of money for those States of pay if the accident occurs in California, and why is that fair?

Mr. PALLADINO. The amounts might be different under the various schemes that are proposed. You still have numbers that have relationships to each other somewhat similar to this.

Senator SIMPSON. What are you saying?

Mr. PALLADINO. I am saying that even if you had a limit, and you were paying so much per reactor, you would have this proportion of the amount paid by the utilities in one State as opposed to the other.

Senator SIMPSON. We had a term that was used in this kind of debate in the past called nexus to the accident. What happened to that? Where did that go?

Mr. PALLADINO. Nexus applies to both what we are proposing and what is being proposed, for example, in areas where there is a retrospective premium per plant. What I am saying is, the relationship of the cost to one State as opposed to another State is not different, although in total it is limited in the case of S. 1225 as opposed to S. 1761.

Senator SIMPSON. There is a major difference between nexus and lack of nexus, whatever that is. I think I know what that is. There is also a major difference between a one-time $5 million assessment and an open-ended assessment. I think we at least want to have our agenda and our thoughts laid out so that we are talking about those things.

Senator HART. Would the chairman yield?

Senator SIMPSON. Yes.

Senator HART. I just want to make an observation.

Doesn't the present law and the present system we have subject the taxpayer to an open-ended assessment?

Senator SIMPSON. Not in connection with reactors. If you are talking about ratepayers, under this caper, you are going to find the full load. I guess those are taxpayers, too, and indeed they are. Under the Federal law, and under the conditions of an operating license, they have the ability to pass this stuff on. Is that not correct? Can anyone challenge that?

Mr. PALLADINO. Mr. Chairman, I think you are right, but from what I remember reading, it is not 100 percent sure that it would be the case.

Senator SIMPSON. Who else would pay it?

Mr. PALLADINO. I don't know.

Senator SIMPSON. I don't know either.

Mr. ASSELSTINE. I think that it is up to the public utility commissions, they could impose these costs on the shareholders.

Senator SIMPSON. They are not going to impose it on the shareholders. They are going to impose it on the ratepayers.

Mr. ASSELSTINE. In all likelihood, I think you are probably right.

Senator SIMPSON. I think I am.

Mr. ASSELSTINE. We don't have any guarantee of that. But Mr. Chairman, the money has to come from someplace. Presumably we are all in agreement that the victims ought not to bear the cost. So then the question really is, Where is the money going to come from?

Senator SIMPSON. Eventually it will come from the United States of America.

Mr. ASSELSTINE. Under the existing law there is a promise that the Congress will provide the additional funding. Presumably that money would then have to come from the taxpayers.

Senator SIMPSON. Those are taxpayers.

Mr. ASSELSTINE. That is right. The question is, Do you want to do it that way, after the fact, or do you want to provide a mechanism that says, the industry, because private insurance in the amounts that are needed simply is not available, will have to self-insure itself? The industry itself will have to pay the cost of an accident. I think that this is what the Commission's 1983 proposal really was all about.

We felt at the time, and I think Chairman Palladino and I still feel, that that is a more equitable way—it may not be a perfectly equitable way, but it is a more equitable way—than imposing that cost either on the victims or on the taxpayers as a whole.

Senator SIMPSON. We use the words "innocent victims," and "innocent taxpayers," what about "innocent utilities"? Let's keep that in the mix, and let's not lose track of that. I am not protecting the utilities.

I have taken too long with my questions. Senator Hart is here, and I am sure he has some questions. What I am seeking is some reality.

Senator HART. Mr. Chairman, I think we all are, but I think Mr. Asselstine summarized the reality, and it is a question of who pays.

I was perplexed by the chairman's observation that under the present system, for reactor-related accidents, the taxpayers don't pay. My understanding is that this is what Price-Anderson is.

Senator **Simpson**. Price-Anderson for licensees is an assessment, and it is an assessment of $5 million per licensee and there are 94 of them, and they pay that. This is paid by the ratepayers, I assume, eventually.

Senator **Hart**. Then above $560 million, the taxpayers pay.

Senator **Simpson**. After that is expended, then we come back to Congress. The plans that are presented to us are to eliminate Congress from this option. I don't think that that is going to get us very far when you eliminate Congress from the option. We should be here and responsible.

Senator **Hart**. Congress has an option. It is Congress as a last resort. That is what Price-Anderson says, and it is open-ended subjecting of the taxpayers to liability, with no liability on their part for what caused the accident.

Senator **Simpson**. The proposals before us, two of them, say that the Congress will be eliminated from the mix. I think it should be the duty of Congress to consider the equities of all parties concerned, ratepayers, taxpayers, utilities, innocent victims, and the measures that are presented to us eliminate the Congress from that decision process.

Senator **Hart**. It eliminates the taxpayer from open-ended liability for accidents caused by others. Price-Anderson for almost 40 years has been a subsidy by the taxpayers for the utility industry, which says, over and above a certain amount, you are not liable. That is all it says.

Senator **Simpson**. Well, $41 million has been paid out in 28 years, so it couldn't have been too heavy.

Senator **Hart**. Then why not eliminate it?

Senator **Simpson**. It might be a good idea. I don't say that it isn't. That doesn't cause me a quiver, but some other things do cause me a quiver. If you eliminate it, and then play an extraordinary adventure where you just tote up the bucks, and you have never had a possible violation, in the State of New York, the utilities are going to cough up $350 million, and it is all going to be charged to the ratepayers, it is not going to be charged to the shareholders. In the State of Colorado, in 5 years, it will be $50 million, and it will not be paid by the shareholders of those utilities, it will be paid by the ratepayers.

Senator **Hart**. It won't be paid by anybody if there are no accidents.

Senator **Simpson**. That is right. We are all waiting for the grand one to come, and we are prefunding it. We can't wait. We are hoping beyond hope that it will come.

Senator **Hart**. You can't argue on the one hand that Price-Anderson is fair because we have only had to cough up $41 million in 30 years, and on the other hand what a horrendous burden this is on the utilities, to cough up all this money, when there are not going to be any more accidents.

Senator **Simpson**. It is the continuation of an annual assessment which is on into perpetuity that I am discussing. If you want to hit them a lick, tell them where you are going to hit them.

Senator **Hart**. It is not a question of hitting a lick, it is a question of liability. Is the industry better able to self-regulate itself than the taxpayers are to make sure that they are not subjected to some sort of liability that they have no control over.

Senator SIMPSON. This is one of the things that we are going to be discussing, and you are next. Do you have questions of the commissioners?

Senator HART. We are having an interesting exchange.

Mr. BERNTHAL. Senator Hart, appreciate being recognized. I just want to reemphasize the point that I tried to make in my statement. If you stand back and look at what is happening now, not just in the nuclear business, but in the chemical industry, the drug industry, and elsewhere, in my judgment this Price-Anderson concept for smooth compensation, administrative law compension, is showing itself to be landmark legislation. Why should the nuclear industry be singled out somehow when very, very similar things are being proposed elsewhere. I have to note that a few weeks ago, I was listening, as I often do in the morning, to that bastion of free-market thought, the National Public Radio. And believe it or not, in view of what is happening in the drug industry, drug manufacturers are withdrawing from putting new drugs, needed drugs on the market, and even proven drugs on the market, for one single reason, tort law liability. So they were toying on NRC with the idea that the Federal Government should compensate all victims for any liability associated with the marketing of new drugs in this country.

That is the way the thinking is going in this country, and in my judgment, the nuclear industry is way ahead of the game at this point because of the Price-Anderson compensation system.

Senator HART. We are really discussing political philosophy. First of all, I don't think that it particularly helps the debate to characterize the political philosophy of National Public Radio, whether you are right or wrong. Second, for an industry to propose something doesn't mean that this is the way we are necessarily going to go, unless Congress should become even more of a rubber-stamp than I think it has.

There is a real deep issue here of political and economic philosophy. It is always strange to me that people who, if you want to use your term, proclaim the free-market, free-enterprise system, turn to the Government and the Congress for help in these circumstances.

Now, if the American people want to pay the cost of extraordinary damage done by a chemical industry or a drug industry, or a munitions industry, or anything else, we can have a system of public insurance, which is really what you are talking about, but it isn't free enterprise. You are just inviting industries not to self-regulate, and not to police themselves, and not to perform.

Liability goes to performance, and if you are not liable, you don't perform. That is the history of human behavior.

Mr. BERNTHAL. If I could comment. The difficulty is that were one to go to a true free market system, there would not be adequate compensation. I have checked the numbers somewhat, and I believe that the largest reasonable expectation from any nuclear utility that an injured party might have would cap out at something in the neighborhood of $5 million. That is the most that they could possibly expect after driving the utility into bankruptcy. So there is a cap on liability.

Mr. ASSELSTINE. That is precisely the reason why the Congress in 1977 went to a risk spreading scheme with deferred premiums where all utilities share in the risk. That is precisely why the Commission in 1983 recommended the next step, which would be to get the Government out even as the ultimate insurer, unless the Congress wants to step in, after an accident and, based upon that situation, do something further about it.

There is nothing in the Commission's 1983 proposal that would prevent Congress from doing it. All the Commission said was, put in place a scheme that would make sure the money would come from the industry. If the Congress wants to do something different at that time, it certainly would be free to do so.

Senator SIMPSON. Let me share with my colleague from Colorado. I deeply appreciate the spirited way that he gets into it. He and I have enjoyed that thoroughly. I have the greatest respect for him, and that has always been.

I will share with you that I would not be adverse to letting Price-Anderson expire. So let's observe that. I want to share that with you. I don't know how much a victim would recover without Price-Anderson, but we could surely attempt to find out under the present provisions.

I think I misspoke a bit when I said, $41 million. I think the $41 million from TMI was mostly private utility funding and not from the pool. Indeed, the Federal Government makes money off of those premiums because, in my mind, there has never been a Federal payment of anything out of those premiums under Price-Anderson.

Is it correct, not one penny in 28 years has been paid out of the pool?

Mr. PALLADINO. I think that it is almost correct, but I think there were some payments.

Senator SIMPSON. Not on the reactor side.

Mr. ASSELSTINE. There may have been some on the DOE contractor side.

Senator SIMPSON. Was there any at all on the reactor side?

Mr. PALLADINO. Let me ask Mr. Saltzman to respond, he is more expert on this than I am.

Mr. SALTZMAN. You are correct, Mr. Chairman, not a penny out of the licensee indemnity side.

Senator SIMPSON. How much did you make off of the utilities' money?

Mr. SALTZMAN. Something like $21 million.

Senator SIMPSON. That is just to the Federal Government from having the money.

Mr. SALTZMAN. Yes.

Mr. PALLADINO. Mr. Chairman, may I make a comment with respect to a statement that you made, and I think Senator Hart has proposed.

Senator SIMPSON. Yes.

Mr. PALLADINO. I think that it is very important to extend Price-Anderson, regardless of which bill I might take a position on, because I think for those possible victims, there should be some mechanism available for them to recover costs for injuries.

One might say, let's follow the normal tort situation, but we are talking here about an organization, a utility, where most of its assets are frozen in the form of capital equipment. I think that trying to get some help for injuries from that is going to be very difficult.

So I would say that I think it is very important to extend Price-Anderson. That is the main reason I said, if I had to, in order to get the Price-Anderson bill through Congress, I would support something different from the approach that I was supporting. I certainly would consider a proposal if it was making provisions for coverage of those who might be injured.

Senator **SIMPSON**. Did you have any further questions, Gary?

Senator **HART**. Not now.

Senator **SIMPSON**. Senator Stafford, did you have any questions? I appreciate your attendance.

Senator **STAFFORD**. Yes; thank you, Mr. Chairman, I do have one or two.

I want to first apologize to the Commission for not being here during their statement. Somebody referred to "in perpetuity," and I thought I was trespassing on eternity this morning in trying to get across the 14th Street Bridge.

Two large dumptrucks and several cars had piled up at one end of the bridge, and a taxi, and a car had piled up at the other end. So I was unable to be here when you were delivering your statements and during much of the questioning.

Let me ask this question, if I may, of any member of the Commission who is willing to respond. The Commission has stated that it does not support amendment No. 770 to S. 1761 that would permit litigation by any utility to recover retrospective premiums paid for damages. The NRC staff states that the amendment would reintroduce the possibility of potentially catastrophic losses on a utility, a supplier, or any other party who may be liable, and that the protection against catastrophic liability losses has been one of the basic objectives of the Price-Anderson system.

Assuming that compensation to victims is assured, why should persons who cause catastrophic accidents be protected from liability for their actions?

Mr. **PALLADINO**. I guess, as chairman, I ought to try to answer the question.

Basically, in our testimony, we said that we felt that it would undercut the Price-Anderson system because it would then reestablish the right of individuals to go sue and try to recover from the utility that had the accident what they had to pay into the fund because of that accident.

I think that this, then, is not sharing the risk as we do in other insurance, but rather says, in the end, we are going to go after the individual who had an accident and try to get our money out of it.

Senator **STAFFORD**. Commissioner Asselstine, did you want to comment?

Mr. **ASSELSTINE**. Senator Stafford, let me make a comment. In fact, I should have said something about this in my opening statement.

I am not sure that I am opposed to that amendment. I am not convinced that as a practical matter it is going to make a significant difference because I think that if you have a very large consequence accident, as a practical matter, the utility that has the accident is going to be in very difficult financial shape, and I am not sure that there is going to be much of a source for the others to go after. But it may be useful for other companies that are involved in the nuclear business.

If, for example, a reactor manufacturer was in some way responsible for the accident, or at least partially responsible for the accident, that amendment would permit the other utilities that paid those deferred premiums to go after the reactor manufacturer or some other supplier to the extent that they were responsible, and that may be a good thing. It may solve the equity concern that Senator Simpson expressed earlier about utilities having to pay for accidents that are not their fault, and their not having a way to recover their losses.

I would also say that as far as this round of litigation is concerned that Chairman Palladino and our staff have spoken about, if we look at the Three Mile Island accident, there was a round of litigation afterward, at least on the property side, with the reactor manufacturer and the utility arguing in court about who was responsible for that accident, at least to the extent of the value of the reactor itself.

I am not sure that it introduces much of a different situation than would already exist in the aftermath of an accident.

For myself, I am not persuaded that there are serious disadvantages to the amendment. I am not sure that it does all that much for the other utilities, but at least it provides some option for them to recover their payments if they aren't at fault.

Mr. **Bernthal**. Mr. Stafford, I would like to just make a comment on the perception that seems to underlie an amendment which would allow one to bring suit against the utility which had the accident, and that is that somehow there is an infinite pot of gold here so that everybody can get back whatever is owed him. I would suggest that this is illusory. There simply is not that amount of money. In fact, my staff informs me that I was being overly generous earlier when I suggested that the maximum recoverable from any utility after bankruptcy would be $5 million.

In 1978, in the Duke Power case, expert testimony was presented before the Supreme Court that suggested, in those dollars of 1978, that it was on the order of a few hundred million. Clearly what we need here is some fair and equitable system to cover the consequences to the public of an accident, and that system is not to be found in the assets of any given utility, no matter who is allowed to sue.

Senator **Stafford**. Any further comments?

Mr. **Palladino**. Senator Stafford, perhaps a comment by a member of our staff would be appropriate.

Mr. **Saltzman**. Senator Stafford, we were discussing earlier the question of equities.

Senator **Stafford**. Would you identify yourself?

Mr. **Saltzman**. Jerome Saltzman of the NRC staff.

Senator **Stafford**. Thank you.

Mr. SALTZMAN. We were looking at the proposal in NUREG-0957, and we thought that that preserved one of the major elements of Price-Anderson which is that no single entity would go bankrupt because of the accident, and that it would spread the costs to the industry in general.

We think that this amendment 770, though, may undermine that basic provision of Price-Anderson, and that is the point that we are trying to raise in our comments here.

Senator STAFFORD. Thank you.

Mr. Chairman, are you on a time limit on questions?

Senator SIMPSON. Ten minutes, but I certainly went over that a bit, so you may proceed.

Senator STAFFORD. I have a couple more, and several additional ones that I might submit in writing. I have one more at least that I would like to address to the Commission at this time. Does the Commission believe that licensees can afford a $10 million retrospective premium without severe adverse financial effects?

Mr. PALLADINO. Senator Stafford, when NUREG-0957 was prepared, there was some effort to determine the ability of utilities to pay that premium. As I recall, the conclusion was that $10 million was a feasible amount for the utilities to pay.

Mr. ASSELSTINE. In fact, Senator Stafford, I think after that, we asked the staff to take another look at it. There was a subsequent review and it confirmed that basic conclusion, even though the utilities had entered into some other deferred systems for property insurance, it appeared that all utilities could afford the $10 million premium.

Senator STAFFORD. Mr. Asselstine, how much money is in the fund at the present time, do you know?

Mr. ASSELSTINE. The Price-Anderson system is not prefunded. There is a level of private insurance, and then there are the deferred payments of $5 million per operating reactor. When you add those up, it comes up to $640 million under the present system.

Senator STAFFORD. I was wondering, since our Government seems to be borrowing money right now from every possible source if there was another source here that could be tapped while we were waiting to raise the national debt.

Mr. ASSELSTINE. It is not prefunded.

Senator STAFFORD. Thank you. I do have some more questions that I would ask unanimous consent that they be submitted to the Commission in writing.

Senator SIMPSON. Senator Stafford, I think you are getting close to something which has a serious impact within your own State regarding whether it was affordable as they got hit with this. It was all a bunch of investor-owned utilities, 10 of them—the heavy hitters, guys that do their work correctly; some of the premium utilities in America, not from the standpoint of anything but their safety record. We left out municipal utilities, public utilities, coops, REA's, that is all out of there. There are some real turkeys in there. Especially with the REA, they put $10 billion down the rathole, and they have very little to show for what REA money ever did for that. It was a distribution system, and now they have turned it into a transmission system, and a generating system. That is REA at work.

I think the thing that we want to remember is that we have a utility with a single asset such as Vermont Yankee, Maine Yankee, Connecticut Yankee, or Yankee Atomic, whose only source of income is from rates, that is all, I think we have to give special attention in this committee and subcommittee as to how they are going to pay their annual assessment if they have decommissioned their single asset, and if they are no longer collecting money from the ratepayers. The NRC report ignores that totally. They have trashed that one. There is a lot of stuff that they have missed in here, but that is one that is left for our conjecture when we are talking about what is affordable.

It is a remarkable deep-pocket theory, but the deepest pocket they are going to find is not the utility, it will be the United States of America. I don't have any problem with that as long as the Congress gets to look at it. If we are going to have the deepest pocket in the world, then Congress has to be involved in that process. I don't see how any of us could object to that, especially when the person who wrote the report himself had an extraordinary statement.

Mr. Long, the independent consultant, said:

> Given the litigious propensities of our society, the removal of limitations on liability could become an invitation for a long-run open warfare for the pot of gold represented by the stream of retrospective premiums.

That is a quote from the Commission consultant, Mr. John Long. That potential disadvantage wasn't even discussed in the report.

I am not trying to be vexatious. I am just trying to say that there is an element of reality in here, and if the Federal Government is going to be involved, then certainly Congress is going to be involved. Mr. Asselstine stated that in supporting the report, one of its principal advantages is that it eliminates the Federal financial commitment to paying liability claims. I wish that were so, but I don't see how that is so if I suspect that insurance companies are unwilling to insure. I think that essentially means that the Federal Government will be required to guarantee the annual payments, and thereby increasing and not decreasing the Federal financial commitment to paying claims.

Senator **Hart**. You are going along fine until you reach that last conclusion. I wonder how you make that jump that the Federal Government is ultimately going to have to pay. Where does that come from?

Senator **Simpson**. You see, under the proposals, there is a guarantee by the Federal Government that they are going to make the payments if there is not insurance, or if it is not insurable, and that is the way it is.

Senator **Hart**. That is under Senator Stafford's proposal?

Senator **Simpson**. Under the Commission's proposal.

Senator **Hart**. Mr. Asselstine.

Mr. **Asselstine**. Mr. Chairman, I think that ultimately, if a utility doesn't pay its deferred premiums, the Federal Government is involved as the guarantor of the deferred premium, and the Federal Government can then try to recoup that money from the utility. The whole emphasis, and I will grant you that none of these are perfect, but the whole emphasis is to do everything possible to obtain the funding from the individual utilities through the deferred premium system. If all else fails, then, of course, the Congress is the court of last resort in terms of providing additional funding.

What we tried to do in the 1983 report was to put as much emphasis as possible on obtaining the funding from the utilities themselves, spreading the risk. You are right, on questions like decommissioning, there are potential problem areas. If a plant goes out of business, and that is the sole asset of that particular utility, then they are not going to be able to continue to pay the deferred premiums that they are obligated to pay. All I would say is that no system is perfect, but what we have tried to do is say, everywhere possible get the money from the utilities, if all else fails, the Federal Government is there to guarantee those payments if every effort fails to provide those payments. The focus is to get the money from the utilities.

Mr. **Bernthal**. Senator Hart, I just wanted to comment again. I did not intend to be overly ironic about National Public Radio.

Senator **Hart**. I just didn't know what it had to with what we were talking about.

Mr. **Bernthal**. My point was just this, that there seems to be an atmosphere of wanting to cling to "let the chips fall where they may," and a kind of free-market philosophy, and let the person who is responsible pay as it applies to the nuclear business.

Senator **Hart**. That applies to any business.

Mr. **Bernthal**. But it clearly is not where things are headed when it comes to liability. For example, on the new drug issuances, and whatnot, it has become very clear that under tort law, drug companies are simply getting out of certain areas of drug manufacture.

Wyeth Laboratory dropped out recently as the sole manufacturer of whooping cough vaccine, as I recall, and for a single reason, because of liability under tort law. That is the reason for the kind of proposal that was suggested, and I think a legitimate proposal, by National Public Radio.

What I am saying is that I think we are singling out one industry when we say that somehow Price-Anderson is a massive subsidy. The Federal Government will be involved.

Senator **Hart**. There is no precedent. There is no other industry that has a Price-Anderson public insurance scheme. You may say that society is headed that way, and it may be, I don't know. If we are going to have a form of socialism, which is what we are talking about, let's call it that. Let's call it socialized public insurance for industry, and everybody gets rid of the free-enterprise reference, because you can't have the taxpayers subsidizing an industry without it being some form of socialism. That is all, let's call things what they are.

Mr. **Asselstine**. Senator Hart, that is the way the Price-Anderson system works. The utilities are obligated to buy whatever insurance is available, and beyond that it was the responsibility of the Federal Government. Each time the act has been amended, the Congress has moved toward getting the Government out, and putting more financial responsibility on the industry. What is embodied in Senator Stafford's bill is really pretty close to the final step.

Senator **Hart**. Essentially, Price-Anderson was an incentive to get into the business. The whole idea was, this is a safe business. We had people testify yesterday from business and industry that nuclear power is safer than any other source of power, and that there has been not one dime paid out from public insurance. This it seems to me is all the more reason to continue the phaseout.

Senator **Simpson**. I would agree with you totally in what you are saying about the socialism, and the aspects of performance. It is very difficult for me to see how performance is going to increase when the good ones are going to get nailed in an unending stream of funds. What advantage is there for good performance?

Senator **Hart**. It will make the bad ones perform.

Senator **Simpson**. Let me ask this, and then I think we have a rollcall vote. Then maybe Senator Domenici will have some questions.

Somebody has got to be able to tell me why the insurance companies will not insure an openended liability if we are not talking about a onetime, but we are talking about an open-ended assessment. I have asked the question before.

Mr. **Asselstine**. Mr. Chairman, I think that everything we are talking about here is beyond the capacity or the capability of private insurance companies. I think that any of the proposals that are pending before this committee, first and foremost, require that the utilities buy whatever private insurance is available. Whatever is available, that is what they have to buy. Once that money is exhausted, then the question becomes, where do you go for the money to pay claims if that amount is not sufficient?

Up until now, it has been sufficient. The concern is, with some accident, it will not be sufficient, and that is when we get into the self-insurance approach of the deferred premium.

Mr. **Zech**. I think that the answer to the question is, no.

Senator **Simpson**. I think it is. We have companies insuring, and they said that they would go to $200 million, and we have $160 million, so they haven't done that. I don't think that they are going to go much further. In the Superfund, they said that they wouldn't insure at all, which irritated everybody, but that is the way I see that going.

I think that we must not delude ourselves to believe, when there is no insurance, and the utility that did the work is out of business, that the United States is not going to be involved. We are going to be deeply involved, and we are going to be well over what we are, and then certainly anyone would agree that the U.S. Congress ought to be involved, book, page, and hymn number, with all of the equity, the innocent victims. I have seen this flight from tort law come through from frustration, because they can't get their hands in the deep pocket. Get out of the way, and just give us some money.

We have a vote, and I think that would conclude the panel with the NRC, and we would begin with Peter Bradford upon return from our rollcall vote. Thank you very much.

[Recess.]

Senator SIMPSON. Now we go to Peter Bradford, second vice president of the National Association of Regulatory Utility Commissioners, Augusta, ME.

It is a pleasure to have you here. I remember, in my early days on the subcommittee, you were a commissioner. I also remember a very, very thoughtful and attentive mind that you brought to the Commission functions. I also remember some very delightful personal visits, and it is a pleasure to see you again.

I believe that our colleague from Maine would like to greet you. I am referring to George Mitchell, a fine contributing member of the full committee indeed, in every sense.

Senator MITCHELL. Thank you, Mr. Chairman.

I want to join you and the other members of the committee in welcoming Mr. Bradford. He has, as you have indicated, been a member of the Nuclear Regulatory Commission, and now the chairman of the Maine Public Utility Commission. He is one of the most knowledgeable and distinguished persons in this entire field. I have had the privilege of counting Peter as a close personal friend for many years, and I am pleased to welcome him back before this committee again.

Senator SIMPSON. Before we proceed, I would like to know if the chairman would like to make a few remarks. I apologize, I didn't see you.

Senator STAFFORD. Thank you, Mr. Chairman. I understand that earlier you may have said the proposal that I placed in front of the committee would not allow Congress to intervene. I think a close examination of the legislation that I have placed in front of the committee would allow Congress to intervene and change the compensation scheme if the effects were too severe. My proposal simply assures that the victims will continue to be compensated while Congress makes up its mind.

I might add that we are all here, of course, to try to shed light on the proposal, and to resolve the problems with the various proposals.

Some of the 50-cent words that you quoted from the report earlier reminded me of the country pastor in Vermont who talked his congregation into redecorating the local church. When that was done, he called the village elders and he complimented them on the appearance of the church, and then he said: "Gentlemen, this church really needs a chandelier, and I wish you would consider that for a week and let me know your wishes next Sunday."

The following Sunday, he had them together again and he said: "Gentlemen, what was your decision on the chandelier?" The elder said:

> Well, Mr. Reverend, we ain't going to do it. In the first place, nobody here could spell it. In the second place, we couldn't pronounce it. In the third place, no one in the congregation knows how to play it. Lastly, what this church needs is more light anyway.

Senator SIMPSON. Those were not my words, I was quoting from the report. I have learned your Vermont stories. I know nearly all of them, especially the one about the bridge, and the fellow who saw the sign that said, Burlington, and there was an arrow both ways. The man walked up to the old Vermonter and said: "Which road will take you there, or does it make any difference?"

Senator **Stafford**. Not to me, it don't.

As they say, as Vermont goes, so goes Maine. I made a speech in Vermont, last week in fact, and one elderly lady came up to me and said: "I hope some day this magnificent speech you gave will be published." I said, "Yes; I believe my wife is planning to have it published posthumously." She said, "That's great."

Senator **Simpson**. Peter, would you like to proceed?

STATEMENT OF PETER A. BRADFORD, SECOND VICE PRESIDENT, NATIONAL ASSOCIATION OF REGULATORY UTILITY COMMISSIONERS

Mr. **Bradford**. Let me begin by expressing my appreciation for your kind words, Senator Simpson and Senator Mitchell.

I share, Senator Simpson, your memories of many earlier visits to this committee. I have always appreciated the nonpartisan approach you have taken to nuclear matters, both in the wake of Three Mile Island and in your chairmanship since that time.

Thank you also, Chairman Stafford, for the opportunity to appear before the subcommittee to testify on the Price-Anderson Act on behalf of the National Association of Regulatory Utility Commissioners.

By way of preamble I should note that NARUC is made up of the regulatory commissions of the 50 States and the District of Columbia, the Virgin Islands, and Puerto Rico. It focuses its attention on consumer protection in the provision of utility services.

NARUC feels that the Price-Anderson Act should be renewed but in amended form. It is our conclusion that the existing nuclear powerplants have, by and large, served the Nation's consumers well. To the extent that Price-Anderson assures compensation of accident victims beyond the operation of private insurance and the capability of individual powerplant owners, it is an important public safeguard. It is our conclusion, which each of the bills before you supports, that substantial modification is necessary for Price-Anderson to play this role today.

NARUC's official position on the renewal of the Price-Anderson Act is set forth in the resolution that I have attached to my testimony. That resolution was unanimously adopted by the NARUC executive committee in July of this year. It was the subject of considerable debate and revision before the nuclear issues subcommittee, the electricity committee, and the executive committee.

Given that background and its ultimate unanimity in adoption by an extraordinarily diverse body, I think that you will find the resolution to be an exceptionally clear statement embracing some significant principles. Nevertheless, I should indicate at the outset that there is not unanimity within NARUC as to the nature of the upper limit on liability that is recommended. No one favors continuation of the present Price-Anderson limits, but views regarding desirable revised limits range from lows in the $1-$2 billion range to endorsement of the 1983 NRC report to Congress which provides for annual limits on a per reactor basis but no overall limit on recovery.

The strong consensus is in favor of an upper limit on the total liability of the nuclear industry, which means that the NARUC position cannot be fully reconciled on this point with either S. 445 or S. 1761. It can be reconciled with S. 1225 except that many commissioners, including me, consider the second and fifth whereas clauses to drive the upper limit well above the $2.4 billion contemplated in S. 1225 because this amount is not based on a current estimate of the costs of a major accident and cannot, therefore, result in the price of nuclear generated electricity reflecting its true costs.

I have been asked by the subcommittee to explain the NARUC resolution in more detail. I will do so, but with the caution that I cannot assert that everyone who voted for it did so with the same interpretation.

The first whereas clause is a factual statement. It is included to address the argument that any major change to Price-Anderson would somehow change the rules in midstream. The fact is that the act has been changed significantly before and that those relying on it have always known that it was subject to a top-to-bottom review every 10 years. The retrospective premium feature itself was inserted for the first time in the 1975 renewal.

The second clause is self-explanatory.

The third clause emphasizes that Price-Anderson should not be treated as an abstract exercise. I should note, however, that the phrase "severe core-melt accident" does not, as Three Mile Island showed, automatically lead to the release of lethal quantities of radiation.

The fourth clause is self-explanatory.

The fifth clause states a principle that NARUC has endorsed in many contexts. It is relevant to Price-Anderson because the current law, limiting liability to some $600 million, shifts the risk of a larger accident out of the price of electricity and onto either the potential victims or the U.S. taxpayer, depending on what Congress does after such an accident. A realistic limit on liability would be reflected in the cost of capital to nuclear utilities and therefore in the cost of nuclear generation. It would not make a big difference on a per kilowatt-hour basis, but the principle is important to sensible longrun energy policy.

It is fair to ask why companies with nuclear powerplants that did not experience the accident should pay anything toward the consequences. Aren't they as blameless as all taxpayers? There are two answers: First, they are all underinsured. The principle of meeting this shortfall through an industrywide pool is recognized in Price-Anderson already—and in other industries such as marine oil transport. The nuclear companies are each other's insurers, and the point that they are blameless after an accident at someone else's plant is of no more weight here than it would be if Lloyd's of London said that it shouldn't pay because it didn't cause its client to have an accident. Second, as noted above, this approach makes economic sense because it assures that future decisions to build plants will be made with this risk exposure in mind. If the exposure above a low limit is to be laid off on all taxpayers, then each new plant decision will be made as if the exposure above that limit did not exist at all.

Having said this, I should acknowledge that some NARUC members do favor lower limits along the lines of S. 1225. They would, I presume, defend this choice by saying that nuclear power's safety record to date gives them confidence that the lower limits are adequate and that higher limits would allow an unrealistic investor nervousness to be passed on to customers in the form of slightly higher rates. This seems to me to be an anticapitalist view to the extent that it substitutes Government's judgment for that of investors, but, in fairness, it cannot be called frivolous if one goes by Price-Anderson experience to date.

I will discuss the last whereas clause in a moment.

Within the resolution itself, only item d requires separate mention. NARUC feels that some plants, for reasons of size or location, clearly pose lower risks than others and that this should be recognized. We would endorse incentives to safer operating practices as well, but we are not sure that a sufficiently reliable rating system can be devised.

Against this background discussion, let me emphasize four further points:

First, there is substantial concern within NARUC that the retrospective premium approach written into Price-Anderson at the time of the last renewal, while a distinct improvement on the act as it had existed until then, does not go far enough. Granted that operating experience to date shows a multibillion-dollar accident to be highly unlikely, the fact is that raising the necessary amounts from the nuclear industry after a catastrophic accident is likely to be unworkable. For one thing, an accident of those proportions might well result in the shutdown of most operating reactors, especially those made by the manufacturer of the stricken plant. Consequently, a per kilowatt-hour assessment would not work. Furthermore, with capital markets substantially disrupted and consumers concerned over increased electricity prices resulting from the need to replace the closed nuclear plants on an emergency basis, raising capital by other means will also not be easy. Under these circumstances, some States may prefer to treat some part of this contingent liability in a manner similar to the per kilowatt-hour assessements now used to fund both nuclear waste disposal and nuclear powerplant decommissioning. Together with its major advantage of assuring that some funds would be available in the event of an accident, this approach also satisfies NARUC's overall policy in favor of having the true costs of each energy source reflected in its current prices. In my view, all of the bills you are considering permit this approach, and none of them require it. NARUC believes this to be the best Federal posture on that point and suggest that you consider encouraging FERC to adopt this position for sales within its jurisdiction if the States involved in the sale have done so.

Second, the NARUC resolution notes that the limitations on liability on the Price-Anderson Act have not been changed in 30 years and bear little relation to the possible costs of a major accident. It seems therefore that a reasonable estimate of the costs of the types of accidents that Price-Anserson is designed to deal with should be made. The General Accounting Office and/or the Nuclear Regulatory Commission should be asked to provide such an estimate before the limit on liability is finally agreed upon.

Third, the occurrence of the Three Mile Island accident since the last Price-Anderson Act renewal has served to illustrate the importance of approaching issues of nuclear safety in a frame of mind that acknowledges the possibility that serious accidents really can happen. This is not to say that probabilities should be ignored in a rush to react to awesome consequence. However, TMI illustrated the inadequacies of operator training, control room instrumentation, and emergency procedures that had been designed through the years in a general belief that serious accidents were a type of boggyman that would never have to be confronted in the real world. Price-Anderson is in some respect a relic of that more innocent era, and its revisions should occur under the assumption that it will be used in the next decade regardless of how firmly we all hold to the hope and—I venture to say the belief—that it will not.

Finally, let me close by reconciling this Price-Anderson testimony with testimony regarding nuclear licensing reform that I gave before this subcommittee in 1983. It is important to remember that the Price-Anderson Act and the nuclear licensing process are intimately linked. The fundamental legislation on nuclear licensing and Price-Anderson passed as part of a package in 1957. Senator Clinton Anderson was so concerned about what he regarded as high handed licensing procedures employed by the Atomic Energy Commission at that time that he insisted on full and mandatory public hearings on the issuance of powerplant licenses before he would agree to the indemnification features of Price-Anderson. Furthermore, the legislation preempting States from regulating nuclear safety was passed 2 years later in the context of the assurance that States could instead be fully involved in the Federal hearing process.

It is, of course, not necessary to regard these three elements of nuclear regulation as frozen forever in relationship to each other because of their original linkage. Nevertheless, the relationship among these provisions should not be ignored either. Nuclear power's privileged status with regard to both State regulation and indemnification was originally purchased with the assurance that the Federal hearings process would be open, fair, and thorough.

Those who now feel that nuclear licensing hearings can be substantially expedited with participants and issues limited or excluded entirely should, I think, be prepared also to support both Price-Anderson indemnification limits that realistically reflect possible accident consequences and the reexamination of the extent of State preemption in light of the vastly greater sophistication that exists today in State governments with regard to safety and environmental regulation in general.

Thank you again for the opportunity to testify. I will be glad to respond to any questions, although these responses should not be assumed to have the endorsement of NARUC.

[An attachment to Mr. Bradford's statement follows:]

RESOLUTION REGARDING THE EXTENSION OF THE PRICE ANDERSON ACT LIMITING THE LIABILITY OF THE NUCLEAR INDUSTRY FOR DAMAGES RESULTING FROM NUCLEAR ACCIDENTS

Whereas the Price Anderson Act is currently before Congress for its third reauthorization, having been substantially modified in 1965 and 1975, and

Whereas the limitations on liability in the Price Anderson Act have not been changed in 30 years and bear little relation to the possible costs of a major accident, and

Whereas the Nuclear Regulatory Commission has estimated the likelihood of a severe core-melt nuclear accident at 50% over the next 20 years, and

Whereas the victims of a nuclear accident must be compensated, and

Whereas all energy sources should have their true costs reflected in their prices, and

Whereas State Commissions should be allowed to currently fund the liability created by Price Anderson,

Resolved That NARUC endorses the extension of the Price Anderson Act subject to the following modifications:

(a) Liability for accidents should be assessed against the industry but an upper limit should be maintained.

(b) A mechanism to adjust the limit automatically for inflation should be included and a mechanism to review the upper limit should be established.

(c) A clear Congressional commitment that victims should be compensated for any damages should be stated.

(d) To the extent possible, differences in risk among nuclear power plants should be recognized.

(e) State regulatory bodies should be allowed to provide current funding for utility liabilities and the costs thereof be treated as current costs for tax purposes.

Senator **Simpson**. Thank you very much.

Of the various witnesses who have testified, you are perhaps the most qualified to address the issue of ratepayer impact of the various proposals that are now pending before the subcommittee.

Under the NRC proposal, is it your view, with the experience you have had as an NRC Commissioner and a Commissioner of a State commission, that the annual retrospective assessment would be a condition of the NRC operating license and, therefore, will be passed on directly to the ratepayer?

Mr. **Bradford**. My working assumption has been that they would be. If the State commission had certificated the powerplant, and presided over the financing and rates associated with it, it would feel Price-Anderson to be a legitimate obligation to be charged to customers.

I will attach one reservation. There are many States that do have laws that say that ratepayers are not to be charged imprudently incurred costs. If a company were in some way negligent or imprudent and that imprudency gave rise to the accident, there would be a question as to the recoverability of the retrospective premium.

My working assumption, as I said, is not based on the prudency question with regard to entering into the insurance scheme. It is not an issue that I have spent any time on.

Senator **Simpson**. I have heard proponents of the annual assessment say that the $10 million assessment would have a minimal impact on ratepayers. A study of 10 IOU's showed that they could afford it, and so on, that it would be an increase of maybe 2 percent in the household bill

Many States, as we know from Three Mile Island, were unprepared to accept any responsibility to pay for the cleanup of TMI–2. Are you comfortable with the idea of imposing the cost of some other utility's accident upon the ratepayers, not knowing what the total might even be at the beginning?

Mr. **Bradford**. I think there is a distinction between the Price-Anderson situation and the TMI–2 cleanup situation. Under the Price-Anderson situation, the utilities contract in advance to be responsible for costs above a certain limit, and that is the essence of the self-insurance scheme. In the case of TMI–2 cleanup, the proposal was that after the fact the utility should take on this obligation.

I felt myself, with regard to unexpected nuclear accident costs, we all had our share. In Pennsylvania, it took the form of the TMI-2 cleanup. In New England, it took the form of the Seabrook cost overrun. In the Pacific Northwest, it was WWPPS. In New York, it was Storeham. Essentially, all of those costs were manageable within the areas confronted with them, and there wasn't any reason to start sharing them around.

The catastrophic nuclear accident would be different. I am not comfortable with the fact that ratepayers would be exposed to costs of that magnitude, but given that we have nuclear powerplants and we have a commitment to them, I am much more comfortable having the risk spread among a number of operators than I would be leaving it with the individual utility.

Senator SIMPSON. I shared with my colleagues, just scribbling, the calculations as to the proposal of the NRC in this area. Three States, New York, New Jersey, and Minnesota will be paying 13 percent of the total annual premium under the NRC proposal, $60 million for New York, $35 million for New Jersey, and $24 million for Minnesota, which is $124 million for those three utilities for an accident that might occur in Arizona. Then four States, Rhode Island, North Dakota, South Dakota, and New Mexico are going to pay even though they don't have a plant within their borders. The utility in Tennessee is grossly negligent and causes an accident, why should the consumers in these other States have to pay an open-ended amount, a never-ending stream for the claims of victims in some other State?

Mr. BRADFORD. The answer to that, I think, is that it is the nature of insurance, and I recognize the difficulty with terming this as an insurance scheme as you explained earlier. Granted that it is not private insurance through a private insurance company, they are the beneficiaries of nuclear-generated electricity, and nuclear generated electricity is giving rise to the risk. If that risk should come home to roost then that seems to be the fundamental nature of the Price-Anderson scheme.

The only significant question is whether it would be better to substitute the taxpayers for those ratepayers.

As to the three States paying a large share of costs, of course, it is because they have a large share of the risk. To the extent that there is a likelihood of an accident, from their own percentage, they are much more likely to have it than some other State.

Senator SIMPSON. When you say that it is an obligation of the ratepayer, and not the taxpayers, I think they are really one and the same. In the attempt to somehow get to shareholders, I don't think that you are going to get to shareholders very well. You will get to them to the point that the utility will go broke and that will be part of this.

Is there any question that the offending utility will go bankrupt? I don't think anybody can argue that one. Then the innocent utilities will come in and make whole a never ending stream of claims, and if that doesn't do it, we know that the Congress will be involved.

I appreciate the comments of Senator Stafford. In the NRC proposal, and in another proposal before us, there was an elimination of the Congress in the process.

This is my final question, and I will go on to Senator Stafford, then Senator Mitchell, and then Senator Domenici. I will not take my full 10 minutes.

This issue calling for collecting assessments for as long as it takes, because that is what it calls for, as long as it takes to satisfy all public claims, even if it means collecting assessments after the utility has gone out of business and their operating license has expired, and their single asset, for utilities such as Vermont Yankee, Maine Yankee, Connecticut Yankee, Yankee Atomic, how are they to make their payments once the license expires, once decommissioning has started? Do we now raise these rates to build an escrow account?

NRC testified that they made $21 million off the utilities' money because they never paid out a penny, and that is fascinating. How do the publicly owned utilities and the rural co-ops make those payments after their operating license has expired? That is my final thought on it. I would be interested if you would comment on that.

Mr. BRADFORD. First, I should reiterate that NARUC does not endorse the 1983 NRC report. NARUC prefers an upper limit of the liability.

While I have some sympathy for the approach that you have been discussing, NARUC as an organization would specifically not endorse it.

The point that you made with regard to the escrow account, and the $21 million, would seem to me to be dealt with if one went to a prefunding system, which accrued some interest before the accident. That interest should be in the fund and should be available as part of what is available to accident victims. It should not just go to the Federal Treasury, or anywhere else. It should go with the amount that ratepayers have to pay as the fund builds.

The problem that you mention with regard to the single-asset utility, I think actually applies to the entire Price-Anderson structure. If there are no more plant starts, then you reach a point where you have a declining number of powerplants, with still some risk out there. I don't see any justification for continuing to charge ratepayers in any State once their utility's nuclear powerplant has been decommissioned. At that point, they are no more part of the risk profile than those who never had a powerplant to begin with.

So at that point, even under the approach of Senator Stafford's bill, you have the Government involved to the extent costs run beyond what the pool could make available.

Senator SIMPSON. Senator Stafford.

Senator STAFFORD. Thank you, Mr. Chairman.

Mr. Bradford, do you support full compensation for damages above any liability limits?

Mr. BRADFORD. Yes, I do, and the NARUC resolution does as well.

Senator STAFFORD. What are the possible sources of funds for payment of damages above any liability limit, that is, who should pay for damages above the limit that NARUC supports?

Mr. **Bradford**. Once you are beyond the limit, both on the nuclear powerplant and on the industry, then it doesn't seem to me that there is any choice other than the Federal Government and I suppose the affected State government as well.

Senator **Stafford**. Thank you, Mr. Chairman. I have one additional question that I will put in writing, and I will submit it in that way if it is agreeable to Mr. Bradford.

Senator **Simpson**. Without objection.

Senator Mitchell.

Senator **Mitchell**. Before I ask Mr. Bradford a question, I would like to submit questions in writing to the NRC panel.

Senator **Simpson**. Let the record show that the Senator Mitchell will have some additional questions for the NRC panel, and any other member who wishes to submit questions.

Senator **Mitchell**. Thank you, Mr. Chairman.

Mr. Bradford, what, if any, are the implications of the Price-Anderson Act to a State which ultimately becomes a repository for high-level waste under existing Federal legislation?

Mr. **Bradford**. The existing law, as I understand it, does limit damages for Federal facilities as well. NARUC has not taken a full position regarding the limitation of liability at Federal facilities since we don't regulate them. I think you can anticipate that we would be very concerned about any direction in any Price-Anderson extension that would make the ultimate siting of a repository more difficult because the citizens of a State were concerned that they would not be compensated in the event of an accident at a waste facility or in the course of the transportation.

Any suspicion that accident victims might not be compensated would be contrary to a move to a prudent and timely resolution of the waste problem. I would think that it would only harden the opposition of the States that are being considered as potential hosts.

So my personal feeling, and my guess of the direction that NARUC will ultimately be taking is that we would want Price-Anderson limits with regard to Federal facilities either to be removed or, at the very least, to be adjusted up or down with reactors to reflect the likely cost of any conceivable accident at a waste repository or in transportation.

Those may, incidentally, not be the same as reactor accidents. They may well be lower.

Senator **Mitchell**. I am not sure I understood the thrust of the question about the unfairness to those States you mentioned, Rhode Island, and others, who don't have nuclear plants but who would be forced to pay something because they derive power from nuclear plants, and the fairness of that.

Senator **Simpson**. This morning earlier, there was a question about the innocent victims, and there was a discussion about the innocent other parties, but nothing about the innocent utility, which has a good record. That is how it came about on the issue of fairness; and my expression.

Senator **Mitchell**. If you accept that premise, then what logic is there to the entire scheme of the Price-Anderson Act which says that after you reach a certain level of liability, then the cost is to be imposed on all taxpayers, presumably through some congressional mechanism, what about the taxpayers in Hawaii and Alaska who don't get any benefit at all?

If there is unfairness in the former case, it seems there is dramatic unfairness in the latter case.

Senator **Simpson**. You agree in your usual perceptive mode. I am thinking of 28 years of Price-Anderson and there have been no claims, none whatsoever. It was said this morning that there had not been one penny paid, and that the Government had made about $21 million. I don't believe they referred to it as interest, but some form of income from the utility premium.

I am just saying that it is the open-ended assessment annually forever, with the observation by their own consultant of this litigious society looking at that pot of gold. I hope that we can reach some common grounds in there.

Senator **Mitchell**. From a standpoint of logic—we don't always do things that way, nor should we—it is a good argument.

Senator **Simpson**. I would like to load it upfront with $2.4 billion, and that is what my proposal is.

Senator **Mitchell**. The problem with that is that there is no logical or rational basis for the original level, and there is none for this. It is merely a figure. No one has said or can possibly say that a careful analysis of the program establishes that this is an appropriate level for a foreseeable incident, therefore, that is the amount that we should establish. It is the classic definition of an arbitrary figure.

Senator **Simpson**. Very much so.

Mr. **Bradford**. The NARUC resolution states that you should get an updated estimate of the likely consequences of a severe accident.

Senator **Mitchell**. We tried. The DOE said yesterday, at least in connection with their facilities, that it can't be done. I think I have just summarized 4½ pages of responses, it can't be done. I think, at the very least, this is something that we should explore in this context, but I think everyone recognizes that the human ability to predict in the future an event which has never in the past occurred is going to be a tough task, although I think that it would be useful.

Mr. **Bradford**. I don't think that it is any more daunting a task than the Rasmussen report, with all of its shortcoming, was. It was undertaken under the aegis of the Atomic Energy Commission 10 years ago. The lower consequences of any given event is something that can fairly be estimated.

Senator **Mitchell**. Let me ask one more question, Mr. Chairman. I apologize to Mr. Bradford for taking up the time with our discussion, but I thought that it was relevant.

Mr. Bradford, in your statement, one of the problems identified is that nuclear utilities may be unable to pay retrospective payments in the aftermath of an accident. Could you go into a little bit more detail on that?

Mr. **Bradford**. Yes; after Three Mile Island, there was a considerable impetus toward shutting down the other Babcock & Wilcox reactors at least long enough to understand whether they faced similar problems.

Indeed, they were shut down for a short time.

In the event of a more serious accident, it is conceivable that all nuclear powerplants would be shut down. It is likely that those of the same design as the damaged plant would be shut down.

As a result, rates would go up considerably as the utilities scramble to purchase replacement power. The levying of a per-kilowatt-hour charge on nuclear-generated electricity would not raise money from the closed plants. The very companies most in need of money would, due to their nuclear involvement, find it very costly to borrow. State commissions would be under considerable pressure not to permit the bailing out of the utility in another jurisdiction, especially since some degree of negligent operation would be likely to have been a factor.

This is why we are interested in prefunding some part of the retrospective premium.

Senator SIMPSON. We have a roll call vote.

OPENING STATEMENT OF HON. PETE V. DOMENICI, U.S. SENATOR FROM THE STATE OF NEW MEXICO

Senator DOMENICI. I have a question, and I will submit it in writing, but I just wanted to make this observation. I should have made it when we started this morning.

Mr. Chairman, I hope that you don't think that my absence until this point in the hearing means that I am not interested. I feel that this is a terribly important issue and I hope to be able to participate fully.

Senator SIMPSON. You always have, and I appreciate it.

Senator DOMENICI. I have a difficult time being in three places at once like the conference, the reconciliation, and the appropriations, but I am hopeful that when we look at our final product that we will say, we have something that works. There is a cliché around, and I don't use that very often, but it is when you have something that isn't broken, you don't try to fix it.

I regret to say that the use of the word "super insurance" is not something that we ought to be doing here.

Senator SIMPSON. I will go and vote, and maybe we won't have a gap here, if I may do that.

Senator DOMENICI. I am going to go and vote in a minute, too.

It sends shivers down my spine when we say, "super insurance," and in any way begin to think of fixing this up like we have fixed Superfund. If there is anything that would concern me is that we would do that great job on this industry because the Superfund is most certainly going to take 10 years for us to figure out whether it is going to work.

Frankly, I believe that we are kidding ourselves if we are talking about, in some way, making this an insurance program, and consider the absolute ultimate accident, and then put in an assessment program to make everybody pay for it. When we have an industry that hasn't cost anything, if we are going to talk about strict liability, then it seems to me that it might be in order to have an amendment to these kinds of laws putting strict liability on the coal burning utilities in this country. I think that it would be interesting to see if we could insure them under some hocus-pocus if it is found that they have caused economic degradation, that they have caused this super cold wave that some predict may occur, which will put this country under ice, and then figure out how much that might cost. If there is strict liability for them, some day, if that happens, we are going to be able to sue them all, and in the meantime they had better all have insurance for that.

To the extent that we are going to have some cooling proposition, when it occurs, if it occurs, and how much it is, you are all going to be paying into it even if we can't measure who did it. It doesn't make any difference, we all did it together.

I am really hoping that we will approach this from a practical standpoint. Clearly, it needs updating, and we need to do a better job with some outside limits, but to create new causes of action, because we really have in mind that everybody ought to get into this act. I am firmly convinced that we are on the path of making something that has worked not work.

I am sorry that I didn't even address the issue of Senator Hart on socialism, that is a marvelous argument. Frankly, if it was true, if someone could prove to me that something socialistic works as well as this act, even a capitalist like Domenici might buy it.

I don't think that it is a very valid argument. I think that our roadway system is socialistic, but it is pretty good. We don't have capitalism involved in it, because we know that it can't do it.

I am hopeful that as we move through this process, we will really consider how well it works and try to build on it, and not try to say we have to invent a whole bunch of new things, new causes of action, because somehow or other there is some trepidation out there that we had better model this after something. I don't know anything to model it after. It is better than what it has been, and it seems to me that the model is a pretty good model, at least for this industry.

I am not familiar enough with the details yet, but I assure you that I will before we are finished. I am hopeful the committee will look at it from the standpoint of making it work, and not from the standpoint of modeling it after something else. Perhaps, if one would like to make sure nuclear energy doesn't work, this is a nice backway to make sure that it doesn't work. I am not saying who that is, maybe there is nobody. I tend to think, looking at it in the past, there are some who are firmly convinced that we ought not to have it, and any time we have this kind of legislation, we ought to be concerned about their attitude, too, versus our responsibilities.

Thank you very much, Mr. Chairman.

Senator STAFFORD. Thank you very much, Senator Domenici. Thank you, Mr. Bradford.

I think that at this point, we will turn to the next witness, Mr. William S. Lee, chairman and chief executive officer of Duke Power Co. The other member of the panel will be Ms. Keiki Kehoe, director, nuclear accountability and insurance project, Environmental Policy Institute.

Mr. Lee will be accompanied by Mr. Steve C. Griffith, senior vice president and chief counsel of Duke Power Co., and Ms. Kehoe will be accompanied by Mr. Michael E. Faden, Union of Concerned Scientists, and Ms. Kathleen Welch, Public Interest Research Group.

We will go in the order in which we have announced the witnesses, if that is agreeable. Mr. Lee, I guess that means you are first.

STATEMENT OF WILLIAM S. LEE, CHAIRMAN AND CHIEF EXECUTIVE OFFICER, DUKE POWER CO., ACCOMPANIED BY JOSEPH B. KNOTTS, JR.

Mr. LEE. Thank you, Mr. Chairman.

I am William S. Lee, chairman of the board of directors and chief executive officer of Duke Power Co. I am here today on behalf of the Edison Electric Institute, and the American Nuclear Energy Council. With me, instead of my colleague from Duke Power, is Joseph B. Knotts, Jr., of Bishop, Lieberman, Cook, Purcell & Reynolds, a law firm in Washington.

I have brought copies of my statement, and a summary, and I would like those filed in the record.

Senator STAFFORD. We will, without objection, place your full statement in the record.

Mr. LEE. We will submit answers in writing to the questions that the members of the subcommittee have proposed.

Mr. Chairman, this industry has responded the last two times that Price-Anderson was revisited after its initial enactment. It was revisited in the mid-1970's and this industry responded by suggesting an increase in the limits of liability, and we do that again here today.

Although some of my sister utilities are kicking and screaming, we are prepared to support the limitation of liability of $15 million per reactor per year in S. 1225. This is three times the current limit.

Let me address very briefly why we should have a limitation on liability.

First, the limitation is part of the total fabric of Price-Anderson itself, which includes a quick pay provision, and a no fault provision, as I call it, not being an attorney, which means that you don't have to determine who is culpable, and payment is made very promptly.

With those two things happening, and no fault determined, there ought to be an equitable limit on liability.

Second, there is another equity argument. For example, without a limit on liability, if the accident were to occur in the State of Colorado, then Vermont ratepayers might be called year, after year, after year, although they have no causal connection to that accident which happened in Colorado, to pay for the liability.

Third, the limit on liability also recognizes that there is in fact a limit on resources. You don't know how much those resources will be. When the limit is reached, then it returns to the Congress. I agree with the thought expressed here today that the Congress really ought to get into the act after the limit is reached because, as Mr. Bradford said, it may be that nuclear utilities, with that type of reactor shutdown, may be shutdown because of that accident. If that happened, NRC could order all of them shut down. In which case you would find utilities running out of money very promptly. Whatever model the NRC staff has about can they afford it or not would be null and void because they would be absolutely shut down.

Senator **Stafford**. Mr. Lee, I apologize, but the time has nearly run out for a vote that is in progress. I thought that Senator Simpson would get back here in time so that we could interchange, but I will have to suspend the hearing for just a moment until he gets here so I will not miss this vote. My apologies for that.

[Recess.]

Senator **Simpson**. The hearing will come to order.

I hear that you were in midtestimony; is that true?

Mr. **Lee**. Yes.

Senator **Simpson**. Please proceed.

Mr. **Lee**. Thank you, Senator Simpson.

I was stating reasons why the industry feels that the limitation on liability should be retained. The two reasons that I have cited so far, one is the equity of having Vermont ratepayers pay more than one time for an accident, and the second would be destroying the fabric of Price-Anderson which includes the quick pay provision and the no-fault.

Then I was getting to the recognition that there is a limit on resources, and Congress would want to revisit the question after such an accident has caused damages in the amount of the limit because the utilities that have nuclear plants may not have them in service. Those utilities may, therefore, be broke.

The cause of the accident, Congress would want to consider when they determine what source of funds should be used to compensate for those damages because it could be an act of God, an act of terrorism on the plant and the utility, and the Congress would want to know that.

The availability of nuclear energy on the weekend sometimes is exchanged among utilities, and some of them enjoy nuclear benefits that do not have nuclear plants at all. There are many ramifications that Congress would want to weigh in considering sources of funds.

Another reason for keeping the limitation on liability is investor perception. Already they are very skittish about nuclear utilities. To remove that limit causes them to be even more skittish.

Finally, Mr. Chairman, the reason for continuing the limitation is illustrated in this chart. This chart is a simple matrix, and it presents the impact of alternative decisions on Price-Anderson with respect to limitation on liability. I have listed three Price-Anderson alternatives in the left-hand column. The middle column is the impact of those alternatives on the existing nuclear plants. The far right-hand column is the impact on prospective new plant commitments.

[The chart referred to follows:]

Effects of the Basic Alternative Actions on Price Anderson

Price-Anderson Alternatives	Impact on Existing Plants	Impact on New Plant Commitments
Renew but repeal liability limit as per S.445 or repeal per incident limit as per S.1761 based on 1983 NRC Report; no reasonable per incident liability limit	Abrogates contract under which they were financed, built and are operated	There will be no new plants committed
Renew, reasonable limit	Generally acceptable, if limit is not so high as to upset security market values for companies with existing plants	Is one of the steps that would make possible new commitments
Let present act "expire"	Acceptable for industry, though size of fund to pay public claims smaller than would be with renewal and reasonable increase in retros.	There will be no new plants committed

Mr. **Lee**. First of all, if we renew but repeal the liability limit as per S. 445 or S. 1761, then the impact on existing plants is that it abrogates the deal under which those plants were built, or committed, and the billions of dollars of securities that were sold and are still in the marketplace to finance those plants. That is an abrogation of the understanding under which our Nation responded to the Atoms for Peace Program.

With respect to new plant commitments, under S. 445 or S. 1761 there will be no new plants in this country. We will have de facto repealed the atoms for peace policy because investors are not encouraged by the nuclear industry, they have no track record and no reason to be.

If you take the limitation on liability away, as others have testified, the investor perception will be such that there will be no new plants. Or we can renew with a reasonable limit, as we submit S. 1225 does in fact do, and we have stretched our concept of the term "reasonable" is to go along with $10 to $15 million, nevertheless we think that it is on the high side, the impact on existing plant will be generally acceptable. The impact of that on future commitments, which we should have if our Nation decides once again that it wants some more use of atoms for peace or even national security, and world competitiveness, S. 1225 would be one of the steps that would make those commitments possible.

If our only option is to renew Price-Anderson without limit, then it is our view that Price-Anderson ought to be let to expire. The impact on existing plants will be the same as Senate bill 1225. It will be an acceptable result on existing plants because the plants will be grandfathered for their remaining lifetime. It would have the same impact on future commitments as S. 445 or S. 1761, and that is that there would be none.

That summarizes why we feel there should be a limitation on liability.

Let me say very briefly on the issue of accountability and safety, Price-Anderson is not a vehicle to achieve accountability and safety. Price-Anderson is to protect the public, and that is why it was devised. Accountability and safety are achieved through other parts of the Atomic Energy Act, achieved through the Nuclear Regulatory Commission, and are achieved through industry organizations such as INPO, such as the National Academy for Nuclear Training.

Mr. Chairman, you mentioned balanced equity and comprehensive reliability. It would seem to me significant to this committee's deliberations would be the finding of the Supreme Court, in a vote of 9 to 0, they found that the Price-Anderson Act, as it exists today, is not in balance, it is tilted, it is tilted in the direction of benefits to the public as opposed to benefits to the industry because of the quick pay and no-fault provisions.

Senator **Simpson**. Mr. Lee, you are going over your time. I am going to have to run for these votes, and I really need to steam along.

Mr. **Lee**. Thank you, Senator.

For the reasons that I have outlined, we prefer S. 1225. There are other problems with S. 445 and S.1761 which my filed testimony speaks to. This completes my summary, except that Price-Anderson worked the only time it was exercised, with payment to the public within hours. If it isn't broke, don't fix it too much.

Senator SIMPSON. Now we will hear from Ms. Kehoe.

STATEMENT OF KEIKI KEHOE, DIRECTOR, NUCLEAR ACCOUNTABILITY AND INSURANCE PROJECT, ENVIRONMENTAL POLICY INSTITUTE, ACCOMPANIED BY MICHAEL E. FADEN, UNION OF CONCERNED SCIENTISTS; AND KATHLEEN WELCH, PUBLIC INTEREST RESEARCH GROUP

Ms. KEHOE. Thank you, Mr. Chairman.

Accompanying me today are Mr. Michael Faden of the Union of Concerned Scientists and Kathleen Welch from the U.S. Public Interest Research Group. In addition to these three groups that we represent, the statement that we are submitting for the record is being endorsed or supported by five additional national organizations.

I want to thank you for holding this hearing on Price-Anderson. We think that it is one of the most critical issues facing this committee. I will submit my rather detailed statement for the record and summarize the primary points for you.

Senator SIMPSON. It will be accepted in the record without objection.

Ms. KEHOE. Thank you very much.

The primary issue before you is the question of who should pay for a nuclear accident. This year, as you know, the issues are somewhat more complex because of the Nuclear Waste Program, and all of the concerns that the States have raised about that.

We believe that we need a Price-Anderson policy, and that policy should achieve two goals. The first is that it should assure full compensation for all damages to the public, and we think that this is most appropriately done by establishing a mechanism for compensating damages in advance of an accident.

Second, we believe that it should reduce the likelihood of nuclear accidents by increasing and strengthening incentives on safety. I wish I were as confident as Mr. Lee on the industry's ability, through INPO and NRC regulations, to assure safety, but I can't be that confident.

Furthermore, we think that a comprehensive Price-Anderson policy would cover the entire nuclear cycle, including both waste and other Federal activities.

As you know there are three bills before the committee. I will not go into the details, I will simply give you an assessment of our opinion on those bills.

S. 1225, which was introduced by yourself and Mr. McClure, sets an absolute cap on industry liability. The stated purpose of this bill is to provide full compensation. Unfortunately, we believe this bill fails to accomplish its purpose by imposing a cap and not identifying a source of funds beyond that cap.

S. 445 introduced by Senator Hart establishes an important principle. It says that if you cause a nuclear accident, you are the one who will be most responsible for paying for that accident. Our organizations have long endorsed this bill because we believe that this is an important and fundamental principle. We also recognize, however, as others have pointed out, that this bill may not assure full compensation after a really severe accident. For that reason, we have urged Congress to consider incorporating an accountability mechanism into the bill which assures more comprehensive and complete compensation.

S. 1761, Chairman Stafford's bill, is based on the NRC plan. We believe that this bill, with Amendments 770, comes closer to achieving the goals that we believe are important for a balanced nuclear accident policy than any other bill on the table. We feel that this is a fair and equitable bill. Sufficient funds would be available to compensate the public for damages. Victims would not be dependent on congressional action, and taxpayers would be protected from becoming the ultimate insurers. Second, each utility's exposure is predictable, manageable, and limited on an annual basis.

Unlike many of the other costs of running the nuclear plant, this is very predictable, and you can plan in advance how much your exposure will be. NRC studies on this show that the additional costs which may be imposed are somewhere around 2 percent of the annual costs of the powerplant. We think that that is not too big of a burden.

Third, it provides the benefits of full liability insurance without all of the normal costs. I really didn't mean to anger you by calling this a super insurance, but I think that in many respects, it is super insurance. It provides significant benefits to utility ratepayers and utility investors, and we believe that it is sound.

The two key features of this are, of course, no one pays a penny in premiums until there is a loss. The second feature is that no one pays any premiums after all damages are paid. In other words, people may only have to pay premiums for 1 or 2 years, and no longer; unlike other insurance plans, you pay from the day you start up until the day you die, and you don't get that same break.

The fourth principle is that this bill, S. 1761, provides the traditional benefits of tort liability without all of the burdens. In other words, victims could receive timely compensation, yet those who contribute are allowed to recover if another party is liable. We think that this is a very sound feature.

We suggest in our written statement several modifications to this proposal, including an advance borrowing authority which we believe would make this proposal even more equitable and comprehensive.

Let me pause for a minute and describe some of my own feelings that I have been going through as we have debated the Price-Anderson issue with the industry over the past several years. I have carefully considered the arguments that the industry has advanced in support of their position, and continue to find that they don't stand up under scrutiny, and they don't appear to be entirely logical. The industry rejects S. 445 because they say that it is unfair to subject an individual utility to this sort of liability. They reject S. 1761 because it is unfair to ask all utilities to collectively shoulder this burden. They argue, in conjunction with that, that this industry should not be somehow singled out for such unprecedented treatment.

Furthermore, while arguing that full compensation should be provided, there is a firm insistence on an absolute cap of $1 or $2 billion. As you know, the only rationale for capping liability is the assumption that an accident could cause damages in excess of that cap. Once the industry's share under these limited schemes is paid, who will pay beyond that, obviously, is the biggest question before us.

The industry believes that it is more fair or more appropriate for taxpayers and victims to assume this open-ended liability, and we do not agree.

Finally, the most puzzling aspect of the industry's argument on Price-Anderson, and the impact that these arguments have on both the public perception of nuclear risk are the source term studies that we have been hearing a lot about recently; the source term studies predict the consequences of a nuclear accident are much smaller than previously assumed. These studies appear to be a cornerstone of the industry's long-range public acceptance program. The industry seems to have full confidence in the source term studies when arguing for reduced emergency planning zones, and relaxation of other NRC regulations. Unfortunately, this confidence is abandoned when Price-Anderson is discussed.

To wrap things up and turn back to the bills, we believe that S. 1225, and any other proposal which sets an absolute and arbitrary cap on liability, has three primary flaws. First, it fails to identify who will pay; second, it makes victims of an accident exceeding the limit dependent on congressional action, while the expedited procedures in S. 1225 may assure a vote in Congress, they do not guarantee that the full compensation will be approved; third, they continue to hold companies who may cause an accident through recklessness or negligence, even willfulness conduct, harmless. We don't believe that that is a responsible policy.

Our organizations strongly believe that the most equitable and responsible approach is for Congress to identify in advance who should pay for all of the damages of an accident. S. 1761 does this, and S. 1225 does not. There is no question that Congress will study the cause of a serious nuclear accident. Under S. 1761, Congress could exercise its authority to intervene in the compensation program at any time. While congressional action is taking place, accident victims will continue to be compensated. Under S. 1225, congressional action will have to take place before any additional compensation is provided. We do not believe that this is fair or responsible.

Finally, I would like to emphasize the fact that we are in complete agreement with the principles articulated by Chairman Stafford in his introduction of S. 1761. We believe that anyone who is harmed or suffers losses as a result of a nuclear accident should be fully compensated. Furthermore, we believe that it is fairer for this industry collectively to become responsible for providing compensation than it is to shift this responsibility to either taxpayers or victims. These are issues of fundamental importance.

Thank you very much.

Senator SIMPSON. Thank you very much.

I do have some questions, and let me start with Ms. Kehoe.

I guess the basic question is why should the utilities that operate their plants safely be liable for open-ended, annual assessments to pay for the accident of another utility?

Ms. KEHOE. I would like to answer that first by saying that the question really is, should utilities as a whole——

Senator SIMPSON. The question is, why should those utilities that operate their plants safely be liable for open-ended annual assessments to pay for the accident of another utility? That is the question.

Ms. KEHOE. I would like to answer it and say that this is the nature of insurance, with the exception of the open-ended nature.

Senator SIMPSON. You believe that?

Ms. KEHOE. I believe that anyone who buys insurance is paying for someone else's actions. What you have in the nuclear utility industry is a very interesting insurance program that is rarely discussed. Onsite property insurance is bought by utilities. The utilities may never need this insurance, yet they pay premiums to the tune of $5 million per plant per year from the time that they first put fuel onsite until the time that the plant is decontaminated, which could be 40 years or longer.

Those insurance premiums are paid. Good utilities pay those premiums just like careless utilities, if we can say that, every year whether they have an accident, or someone else has an accident, or no one has an accident. That is the nature of the insurance.

Senator SIMPSON. That is not really the nature of insurance because insurance doesn't cover open-ended things. The policies are so precise, and the conditions are so clear, and that is why they are jumping ship on Superfund, because they have written a policy, and the costs have gone beyond the policy, so they don't write that insurance any more.

If people can understand that when you have insurance companies that won't write insurance, and you don't have insurance, maybe that will leak down through America at large, no matter how much you want to look for the deep pocket, and there are many of us who do and did when I practiced law, I remember doing that. The issue is that insurance is insurance. When you say that you have differences with Mr. Lee and his people about their logic, I am sure that they have a little trouble with yours, and that has got to be one right there.

Let me ask you this. The Environmental Policy Institute, and the Union of Concerned Scientists testified before this committee on TMI-2 cleanup, and you said that under that bill the direct passthrough of premium costs combined with the limited assessment from the utilities authorized to reimburse the full costs of any future accident in effect makes this mechanism not insurance, but rather an unlimited excise tax on nuclear utility ratepayers.

Mr. Faden said, and I quote: "Fund is not really an insurance in any normal sense of the word."

How do you reconcile your position on TMI-2 cleanup, which you said was not insurance because it was an assessment, with your position on the NRC proposal, which contains the same particular assessment which you contend is just another form of insurance?

Mr. FADEN. If I could answer that, Senator. As you said, I did draw on that testimony several years ago. I don't think that either of them is insurance in the classic sense. I think what we had then, and what we have proposed now is a kind of a collective risk sharing that takes the place of insurance in a situation where normal insurance, as you said, is not available. We have the three possible parties, the victims, the taxpayers, and the utilities, and we think that it is fairest, of those three, that the utilities bear the burden.

Senator SIMPSON. I have trouble with that because I am reading this testimony and it says: "S. 1761 is essentially a Super Insurance Program."

Ms. KEHOE. Let me explain. The rationale for saying that it is a Super Insurance Program, as I hope I have made clear, is that you get the benefits of an unlimited insurance policy at the cost much less than the traditional insurance policy would cost.

We all know that there are different balances and tradeoffs. Under the proposal that the NRC and its staff have made, everybody gets a break. Nobody pays a dime until there is an accident. Nobody pays a dime beyond the amount of money that it takes to compensate for damages. No insurance policy in the world is written that way, and that is a break.

Senator SIMPSON. If it is so good, why isn't everybody doing it? When you say that it is super insurance, in reality it is self-insurance.

Ms. KEHOE. To me, it is good, if it is super insurance.

Senator SIMPSON. It is good for everybody, except those who write insurance.

Ms. KEHOE. But those who write insurance have no involvement in the program. Under the program, they write the first $160 or $200 million of coverage. This layer says, if you are unable—if the private market is unable to insure this risk, use the Federal program which will float beyond that.

Senator SIMPSON. I am only trying to get some consistency here, and it is difficult; 3 months ago, testifying against milltailings, a witness from the Environmental Policy Institute, said: "We should not set up a situation where there are those open-ended liabilities when we can demonstrate a direct connection to who is responsible for those particular costs." That is a quote from your own organization's testimony. Why is that any different from what the NRC proposes to do, an open-ended assessment on all utilities, without regard to who is at fault in the accident?

Why would you support it there, but oppose that approach in a bill on milltailings?

Mr. KEHOE. Mr. Chairman, I am going to have to apologize and say that I am not familiar with the proposal on milltailings.

Senator SIMPSON. I know you were not there. I am just trying to get some consistency of your organization. If you had another person testifying there, and another person here, is there consistency in the proposals, or is it kind of collective resistance?

Ms. KEHOE. I would not call it collective resistance.

Senator SIMPSON. I am trying to establish why it is good here, and 3 months ago it wasn't. Let's look at July 1979. The Environmental Policy Institute, this is a group that discusses things and takes a position like all groups in Washington, DC.

In July 1979, they said, "after an accident has exhausted all available assets, the President should forward his recommendation to Congress on what additional compensation should be provided, and the Congress should act on those recommendations in 90 days." That was the position in July 1979.

In 1980, you commented by saying that Price-Anderson should be repudiated. In 1983, you endorsed the measure of S. 445, calling for absolute limits on the amount that those utilities not responsible for an accident must pay through a prospective premium. You endorsed the retrospective premium for $5 million, which would be a one-time assessment. That was 1983.

Now, in 1985, in October, you endorse an approach that calls for open-ended assessments on innocent utilities up to $15 million, and now oppose the congressional review position totally, which is virtually identical to the one that you supported in 1979, and you do that on the grounds that Congress will adopt the program. It is very puzzling to me.

Ms. KEHOE. Mr. Chairman, if I may explain. I do agree that our position on this has evolved, and part of what has happened is that various proposals have been put on the table which introduce totally new concepts, totally new ways of approaching the problem.

Our fundamental concern and position has continued to be that this industry should bear the full costs and the full risk of its technology. There are ways to do that which put that entire burden on the individual utility. Then we hear from the industry that it would not give public compensation. We said, OK, the NRC has proposed an approach which gives the public full compensation. This is something that we were initially skeptical about, and we studied it longer and with the modifications such as those proposed by Chairman Stafford, we think that it is a reasonable approach.

We have not in any way ever said that Congress should not intervene, exactly the opposite. I think that there is no question that Congress will come in. The only question is, Are the victims of an accident sitting and waiting until Congress comes in before they can be compensated, or are they being compensated while Congress tries to make up its mind?

Senator SIMPSON. Let me go on. I don't think that we are going to get much further on that. I will submit some questions in writing, and I would appreciate a response to them, particularly with regard to consistency.

We have had this on the books for 28 years. We have been stumbling along with it. We have made no payments out of it. Then your testimony just shifts like the Sahara sand. I would like to know why that is. Nothing new has happened. You don't like nuclear power, that is where it ought to start, and these guys do. They love it, and you don't.

Mr. LEE. I am not enamored with nuclear power, but it is the lowest cost, safest generation of electricity.

Senator SIMPSON. You are not enamored with it, but we are going to peddle this stuff. Here is where you are, and the others are here.

I have some additional questions, and then I will come back to Mr. Lee.

In 1980, when the committee considered and reported the original Superfund, we gave careful thought to the equity of imposing a Superfund tax, we all know that, on the chemical industry. When we agreed to do that in 1980, and I was a cosponsor of that, it emphasized that we were comfortable about that for a few reasons.

First, after looking at the chemicals that were showing up in the waste sites, in the Valley of the Drums, and all that business, the committee felt that the tax on various companies reflected their percentage contribution to the waste dump problem. In the words of the report, there was a nexus, a nexus, between those being taxed and the problem.

Second, we were comfortable taxing these companies because they were placing statutory maximums that the fees could not exceed.

Third, we felt that the appropriations process would assure a scrutiny of the use of the fund by the administration and the Congress.

You note in your testimony that the approach you support, the NRC approach with oakleaf clusters, which is the subrogation amendment, is similar to Superfund. Yet as I review that original rationale for the Superfund, enterprise liability as reflected in our report, your proposal goes far beyond it in every one of those three areas.

What is the nexus here that you see between the accident at utility A and the requirements for other utilities to pay the damages, innocent utilities? We use innocent victims, so we have to use innocent utilities, we must do that.

If you really want to set up a Superfund type of approach, shouldn't we then set limits on the annual assessments, that is what we do in Superfund, and provide that this money can't be awarded by a court without congressional appropriation? Why should we differ?

Ms. KEHOE. We are not suggesting that this approach should be the same as Superfund. To go the reference in my testimony where we related it to Superfund, it was the one feature which I think creates a great deal of equity for this program, and that is the feature whereby innocent utilities who contribute to this fund have the legal right to at least seek recovery for their contributions if someone else has caused the damages. I think that that is a very sound principle.

In principle, a program which says, we will compensate victims out of fund X, and if someone within this industry is found to be liable, then that responsible party will pay, but we won't hold up victim compensation while they are fighting it out in court.

Senator SIMPSON. That is what we deal with, with agent orange and Superfund, it is: Get out of the way. The court system is too slow, too frustrating. Just get out of the way and compensate us, and we will figure out why later. That is a very interesting concept that pervades agent orange, Superfund, and now this.

We have a vote coming up, let me submit some questions and ask you to respond, if you would, and let me go to Mr. Lee.

Many have suggested that we should let Price-Anderson expire. In fact, some of the witnesses here at the table today, and others yesterday, have criticized it as an inappropriate subsidy for the nuclear industry. This industry, they argue, should be treated like every other industry, ranging from airlines to automobiles to chemicals. I say to you, what is wrong with that; why shouldn't we give, perhaps, serious consideration to allowing this act to expire so that we might treat the nuclear industry like everybody else?

Mr. LEE. Senator, I am in favor of extension of Price-Anderson because of that very, very remote possibility that there should be an accident large enough to trigger it, and it would pay the public quickly.

Unlike allegations made about our industry, we are for compensating the public for damages.

If it is extended, however, with unreasonable terms and conditions, then I think it best to let it expire and let the existing plants be grandfathered under the continuing protection of the old Price-Anderson. We would rather not see it expire, however, we think that it can be extended with reasonableness.

Senator SIMPSON. What would you do with the new utilities coming on line?

Mr. LEE. A new unit that is coming on line?

Senator SIMPSON. Yes. You say that you grandfather the ones under the existing law.

Mr. LEE. They would be covered under the construction permit date.

Senator SIMPSON. Could you give a rough estimate of what plaintiffs could expect to recover from a utility for damages following a nuclear accident if we were simply to provide for a system that allows for lawsuits against utilities in place of the shared liability of Price-Anderson?

Mr. LEE. It would be minuscule compared to the Price-Anderson recovery, and that is why it should be extended.

Senator SIMPSON. If you could just do this, if you could put in context for the subcommittee the magnitude of the annual assessment for a nuclear utility using $10 million. According to the NRC that would result in about a 2-percent rate increase for consumers, an amount they suggest is reasonable, and I think they say that it is affordable, even if it occurs at someone else's utility. I guess that sounds pretty good on the surface, but if you look at it as a State-by-State proposal, and I did that earlier when I talked about New York consumers, New Jersey, Minnesota, and so on, the numbers add up.

Are those assessments as insignificant as the NRC suggests, and would you be able to convince the State utility commission, if you approached them today, that you should be allowed to include this assessment in your rate base?

Mr. LEE. Senator, first of all, the NRC estimate of 2-percent, as I remember, was in the context of a brandnew plant, an expensive plant with high capital costs. If you take the imbedded cost of nuclear plants across the country, in our particular case it would be 7-percent, and not 2-percent.

As to whether the public utility commission would support it, we don't know. In our case, one commission—we serve two States—rejected our contribution to the clean up of Three Mile Island, which we think is justified because what we will learn will help us with decommissioning, and another State supported it. So in one State, it comes out of the shareholders' hide, and in another case, it comes out of the ratepayers' pocket.

I would say this, if you have a one-time assessment, it is unlikely that the ratepayers would pay it because we have a traditional historical test year, that payment would have been made, then you would not be faced with that payment again. The commission in our jurisdiction would say that that was an extraordinary nonrecurring event, and we will not include that in rates.

Chances are, with S. 1225, it would come out of investors' pockets in our particular case.

Senator SIMPSON. I regret that I must go and vote. I do appreciate your testimony. As you can see, as you sit together at the table right there, you disagree on the basics. The basics are, are you for nuclear power or are you not for nuclear power.

Ms. KEHOE. Mr. Chairman, may I answer one thing on that?

Senator SIMPSON. All right.

Ms. KEHOE. It is often the criticism of the positions that we take on these issues. We are in agreement with Chairman Palladino on this issue, and I find that surprising and not very antinuclear.

Senator SIMPSON. I have been here for 7 years, and in those 7 years, I have found that there are people with great antipathy toward commercial nuclear power, and they don't seem to be able to scrub that away. There are people, as I say, and I have said it before, not to be cute, I am just as turned off by people who say: "Hell no, we won't glow," as those who say: "Nobody has ever been killed."

I appreciate the fact that I know you, and I know Mr. Lee, and I know that you keep talking, and I hope you will. I know that it is difficult. I don't know that you always get good things done, but at least if you continue to communicate, I think that cannot help but be good for both of your positions. I admire you for trying to do that.

I know what Bill Lee does with INPO, and I know what your group does. But if we can stay consistent, stay honest, stay open and direct, and not play fun and games, and see how to crank up a new theory, or a new approach, a new something, we will make some progress, not just here but in the whole U.S. Congress. I admit that this is a fond and naive expression of hope.

I leave you now, and I will be back for Mr. Richard Schalmz. We will have that testimony after this rollcall vote.

I thank you very much.

[Recess.]

Senator SIMPSON. All right, in this long, protracted, and spotty hearing of leaping up and down, you are very patient, I appreciate that. The final witness today is Mr. Richard Schalmz, a consultant with the American Nuclear Insurers in Farmington, CT, accompanied by Mr. Joseph Marrone, vice president and general counsel of the American Nuclear Insurers.

I appreciate your patience. Thank you for that. Please proceed.

STATEMENT OF RICHARD A. SCHMALZ, CONSULTANT, AMERICAN NUCLEAR INSURERS, ACCOMPANIED BY JOSEPH MARRONE, VICE PRESIDENT AND GENERAL COUNSEL, AMERICAN NUCLEAR INSURERS

Mr. SCHMALZ. Thank you, Mr. Chairman. We appreciate in return your invitation to present our views on nuclear power, with special focus on the Price-Anderson program and the insurance aspects.

I am going to ask that our full statement be submitted in the record, and I will try to summarize.

Senator SIMPSON. I appreciate that. Your statement will be admitted into the record.

Mr. SCHMALZ. We received only yesterday some questions that were specifically addressed to us. We have not had an opportunity to prepare answers, and if we could have a reasonable time to do that, we would also appreciate that.

Senator SIMPSON. Indeed, you will. If you will check with Mr. Curtiss as to an appropriate time.

Mr. SCHMALZ. Thank you.

We, as insurers, do not believe that we can entrust the safe development of nuclear power to a laissez-faire energy market, and I think that indeed has been the course of consensus opinion since the program started.

On the other hand, once our National Government chooses the course of close and detailed regulation, it does become a partner in the outcome. The case for such a course lies in large part on the realization that there are economic and social advantages to the nation as a whole from a sound nuclear energy program. The benefits are not confined solely to local ratepayers and the owners of public utilities. Thus, at some point, our National Government ought to assume some financial stake or provide some financial support.

As insurers, we are concerned about the bad effect on the morale and safety that may result from a policy which deals with the special risks of nuclear power by placing a cumulation of heavier financial burdens on the nuclear power industry. The assumption that imposing unlimited liability, or substantially increased financial burdens, will automatically make nuclear powerplants safer or provide the public with more financial protection is not sound in our judgment. It may have just the opposite effect.

It seems to be inconsistent with fundamental fairness to require special measures, licensing requirements, and financial protection standards, which all impose substantial nonmarket costs, without balancing them with some compensating relief. There is no other industry where 95 members are required to provide compensation for an accident at the 96th, nor where this 96th member is required to assume exclusive and virtually absolute liability for damages arising in connection with its plant. This certainly would not happen under ordinary rules of law or free-market principles. Yet, these unique rules can operate fairly and assure the public of reasonable financial protection in cases where there would be clearly far less compensation, or no compensation at all, precisely because of the Price-Anderson and the fundamental soundness of its balancing principles.

The question arises quite naturally, why the pools and private insurers generally are so concerned about the limitation on liability? Their interest is, of course, secondary to that of the nuclear power industry itself, with its much greater financial stake. We have looked and will look to the nuclear power industry to undertake the major discussion of proposals to raise the limitation on liability or remove it entirely.

There are, however, certain related factors that have a direct bearing on the amount of insurance that private insurers are able to supply, not just for this special risk associated with a nuclear powerplant, but also for the vastly greater number of conventional risks located in its vicinity.

The role of the pools in providing property insurance to the nuclear powerplants and operators is well known. By drawing on professional reinsurers throughout the world, the pools now make $585 million available to protect plant investment for owners and ratepayers. At the same time, the members of the pools and other private insurers around the world supply conventional insurance freely to other risks located in the vicinity of nuclear powerplants.

What is not so well understood is that private insurers, faced with the catastrophy risk of nuclear power, even though remote, can maintain open markets without the fear of adverse selection, or of cumulating excessive potential liabilities only because of the Price-Anderson system.

Price-Anderson channels all liability to the operators of nuclear powerplants. It places an absolute ceiling on such liability at a reasonable amount, and pledges supplementary financial Government assistance in the remotely possible case that the privately furnished financial protection proves to be insufficient.

Our stress on the need for channeling and an absolute limitation on liability is not new. From the very beginning they have served as the foundation of a workable, private insurance program. But they take on added significance today as we continue to witness world insurance markets retreat before an uncontrollable expansion in the cost of compensating tort liabilities in the United States.

Price-Anderson is not unique. Most, if not all, of the free economies around the world that are developing nuclear power have adopted both channeling and limiting liability for nuclear risks with supplemental Government support.

In addition to encouraging widespread availability of insurance, these twinconcepts do away with the enormous legal complexities and associated costs that arise when there are dozens of potentially liable participants.

As we approach the expiration of the current extension of the Price-Anderson program, we have seen several proposals that call for its renewal with changes. The proposals all appear to agree that its positive elements should be retained, that is those features which enlarge the liability of the nuclear industry and increase the chances of obtaining compensation payments.

The proposals split into two camps, however, when it comes to the matter of an offsetting balance. Mr. Seiberling's bill and Mr.

Hart's bill would destroy the balance entirely by removing the limitation on liability. This would carry down the channeling concept, without a limitation on liability or Government indemnification, to a very low level, and it would be of doubtful constitutionality.

Senator Stafford has recently introduced a more moderate proposal, which attempts to address some of the problems that would result from an outright removal of the limitation on liability. It also has other positive provisions. The major feature of the bill is its substitution of an annual cap on the amount of the retrospective premium that may be assessed against each licensed powerplant for an absolute limitation on liability. The amount of that assessment, which is now $5 million for an incident, increases to between $10 and $15 million.

These changes result in an enormous potential increase in the contribution required from each licensee to discharge the liability of all persons who may liable for a nuclear incident. There are several reasons why we believe that such an increase is not wise.

It expands substantially the role of the tort system which is currently out of control, and at best is an enormously expensive and inefficient system for compensating catastrophies. By establishing an infinitely large compensation fund, it may encourage even further expansion of tort remedies.

The present Price-Anderson program has the advantage of allowing Congress to establish more realistic and efficient compensation procedures for an incident that results in tort damages in excess of $640 million.

Such an increase in retrospective assessments as proposed by S. 1761 may in itself be so large that it will seriously impair the financial stability.

Senator SIMPSON. Would you crank it up a little, please, I am running so far behind, I will never catch up, I really would appreciate it.

Mr. SCHMALZ. This would have an adverse effect on the industry's ability to serve its customers. Safety may suffer in a financial squeeze.

We think, as was demonstrated this morning, that a plan under which 96 reactors or 95 reactors pay for the unlimited amount of damages of the 96th is far from an insurance scheme, and it can only work if that amount is limited, and each of the beneficiaries of that scheme is not forced into bankruptcy by allowing cross-claims for subrogation.

There are two bills, though, that we think meet the test of a workable insurance market. One is Congressman Price's, and the other is S. 1225, introduced by Mr. McClure and Mr. Simpson. We think that that is a workable approach. We do have some reservations, however, about the three-tiered approach which does set up a Superfund-like mechanism to put in an additional layer of compensation. We think that it might be preferable simply to have an increase in the assessment liability to produce an equivalent amount, without that compensation.

Thank you.

Senator SIMPSON. Thank you very much. I did want to ask a question or two.

You have reviewed the four proposals pending here, three legislative, one report, each suggesting changes be made. If you could just, very swiftly, what is your view of the impact on the availability of insurance, an issue which we did find of critical importance when we were considering the Superfund bill. The availability of insurance, just briefly, would you tell us?

Mr. SCHMALZ. I think that either Congressman Price's bill or S. 1225 would not in any way discourage the availability of insurance. I think that it would take its normal course. Markets would develop as capacity grows, and the private markets could contribute perhaps some measured increases in the liability and on the property side. They would also be able to keep open the other markets for conventional things.

The other bills would have a very potential adverse effect in our judgment on workd market conditions.

Senator SIMPSON. I understand that private insurers now provide insurance for the retrospective premium payments required of utilities up to $30 million for one accident, and $60 million for two accidents. Under the NRC approach, which calls for an undeterminate $10 million annual assessment, would the private insurers be able to offer insurance as they do now for such an open-ended assessment without any knowledge of what the total assessment would be?

Mr. SCHMALZ. I have a feeling that the present market might disappear, Mr. Simpson, in view of the substantial increase. We couldn't possibly offer enough to cover the risk.

Senator SIMPSON. You pointed out in your testimony that worldwide insurance markets are retreating in the face of this uncontrollable expansion in the cost of catastrophic compensation using present or conventional approaches.

Would you expand on what you have witnessed just briefly, and comment on what you see as the principal differences in the approach taken under Price-Anderson and other conventional approaches? What in particular is different about Price-Anderson and the nuclear enterprise that, in your judgment, makes that market more stable and efficient?

Mr. SCHMALZ. The limitation on liability coupled with the channeling of liability is really the key.

Senator SIMPSON. One final question. One of the proposals pending calls for allowing individual utilities to recover whatever contributions they might have made to the secondary layer of any other party that might be liable under normal tort law, I guess, in what amounts to a subrogation action. What impact, if any, will that provision have on the availability of insurance, both for the utilities and for those parties who are not now covered under Price-Anderson, such as vendors, architect/engineers, and others?

Mr. SCHMALZ. It would destroy the channeling concept which we believe is the key to vigorous insurance markets. It would place a competing demand on coverage which I think would, in the end, result in substantially less coverage and higher costs.

Senator SIMPSON. It is a vexing thing for us, and there is this element of talking about insurance, and even super insurance, and all sorts of insurance, but if nobody will insure it doesn't make much difference, I guess; does it?

Mr. Schmalz. It is very difficult for the private market to operate if it is going to be faced with cumulation of liability in this area.

Senator Simpson. Would you please provide the subcommittee with your analysis of the impact of the various bills on insurance availability, I think that is very important, availability. In other words, can you buy the stuff to take care of the risk that you are insuring, it is kind of a basic thing that we forget sometimes.

Mr. Schmalz. We will be happy to.

Senator Simpson. The subcommittee will, then, continue hearings on Price-Anderson, obviously, because it expires August 1, 1987, and we will continue to hear from other interested parties affected by the various proposals now before us.

I appreciate your being here.

I want to thank the staff, Priscilla Gallerano, Dan Berkovitz, Kate Kimball, and Ron Elving of Senator Hart's staff for their good work in 2 days of very interesting and provocative hearings. I also want to thank my fine right-hand man on nuclear issues, Jim Curtiss.

This will conclude the hearing.

[Whereupon, at 1:25 p.m., the subcommittee adjourned.]

[Statements submitted for the record and responses to additional questions follow:]

STATEMENT OF
U.S. NUCLEAR REGULATORY COMMISSION

BEFORE THE

SUBCOMMITTEE ON NUCLEAR REGULATION

COMMITTEE ON ENVIRONMENT AND PUBLIC WORKS

UNITED STATES SENATE

CONCERNING

PRICE-ANDERSON

PRESENTED BY NUNZIO J. PALLADINO, CHAIRMAN

SUBMITTED: OCTOBER 23, 1985

Mr. Chairman, the other members of the Commission and I are pleased to appear before the Subcommittee to testify in its hearings on reauthorization of the Price-Anderson Act.

We hope that a full expression of our views today will assist the Subcommittee in its consideration of the bills pending before it -- including S.445, the "Civilian Nuclear Power Regulation Improvement and Safety Incentives Act of 1985," introduced by Senator Hart, and S.1225 the "Price-Anderson Act Amendments Act of 1985," introduced by you, Mr. Chairman, and Senator McClure, and S.1761, the "Price-Anderson Improvement Act of 1985," introduced by Senator Stafford.

Before expressing those views, I would like to describe the Price-Anderson Act in general to set the framework for the discussion to follow.

The Price-Anderson Act was initially enacted in 1957 for a ten-year period. It was amended and extended in 1965 and in 1975. Absent Congressional action, the Act will expire on August 1, 1987 with respect to authority to indemnify new licensees.

The Act requires licensees of commercial nuclear power plants having a rated capacity of 100,000 electrical kilowatts

OR MORE TO PROVIDE PROOF TO THE NRC THAT THEY HAVE FINANCIAL PROTECTION IN THE FORM OF PRIVATE NUCLEAR INSURANCE, OR IN SOME OTHER FORM APPROVED BY THE COMMISSION, IN AN AMOUNT EQUAL TO THE MAXIMUM AMOUNT OF LIABILITY INSURANCE AVAILABLE AT REASONABLE COST AND ON REASONABLE TERMS FROM PRIVATE SOURCES. THAT FINANCIAL PROTECTION, CURRENTLY $640 MILLION, CONSISTS OF A PRIMARY LAYER OF NUCLEAR LIABILITY INSURANCE OF $160 MILLION AND A SECONDARY RETROSPECTIVE PREMIUM INSURANCE LAYER. IN THE EVENT OF A NUCLEAR ACCIDENT CAUSING DAMAGES EXCEEDING $160 MILLION, THE LICENSEE OF EACH COMMERCIAL NUCLEAR POWER PLANT WOULD BE ASSESSED A PRORATED SHARE OF DAMAGES IN EXCESS OF THE PRIMARY INSURANCE LAYER UP TO $5 MILLION PER REACTOR PER INCIDENT. WITH 96 COMMERCIAL REACTORS UNDER THIS SYSTEM, THE SECONDARY INSURANCE LAYER TOTALS $480 MILLION.

THE PRICE-ANDERSON ACT ALSO AUTHORIZES THE COMMISSION TO ENTER INTO INDEMNITY AGREEMENTS WITH REACTOR LICENSEES. THESE AGREEMENTS SPECIFY THE AMOUNT OF FINANCIAL PROTECTION REQUIRED OF LICENSEES, IF ANY, AND THE OBLIGATION OF THE FEDERAL GOVERNMENT TO PROVIDE FUNDS, I.E., "GOVERNMENT INDEMNITY", IN THE EVENT THAT A NUCLEAR ACCIDENT EXHAUSTS THE PRIVATE LIABILITY INSURANCE OR WHERE NO PRIVATE LIABILITY INSURANCE IS AVAILABLE.

THE PRICE-ANDERSON ACT PLACES A CEILING ON THE TOTAL AMOUNT OF PUBLIC LIABILITY RESULTING FROM A NUCLEAR ACCIDENT. FOR LARGE COMMERCIAL POWER REACTORS, THIS "LIMIT OF LIABILITY"

IS CURRENTLY TIED TO THE MAXIMUM AMOUNT OF INSURANCE AVAILABLE THROUGH PRIVATE SOURCES. FOR MANY YEARS, THE LIMIT OF LIABILITY WAS $560 MILLION. CONGRESS PROVIDED THAT THE LIMITATION ON LIABILITY WOULD GROW, ONCE THE TOTAL PROTECTION OF THE PRIMARY AND SECONDARY LAYERS OF INSURANCE REACHED $560 MILLION. IN NOVEMBER 1982, THE $560 MILLION LEVEL WAS REACHED AND THE GOVERNMENT'S INDEMNITY WAS ESSENTIALLY ELIMINATED. THE PRESENT LIMIT OF $640 MILLION WILL CONTINUE TO INCREASE IN INCREMENTS OF $5 MILLION FOR EACH NEW COMMERCIAL REACTOR LICENSED TO OPERATE.

I WOULD NOW LIKE TO ADDRESS THE MAJOR ISSUES ASSOCIATED WITH REAUTHORIZING THE ACT. AS YOU ARE AWARE, IN DECEMBER 1983 WE SUBMITTED TO THE CONGRESS A REPORT ENTITLED, "THE PRICE-ANDERSON ACT -- THE THIRD DECADE," NUREG-0957. THE REPORT REMAINS BASIC TO OUR DISCUSSION OF EXTENDING PRICE-ANDERSON AND THE COMMISSION'S CURRENT POSITION. MOREOVER, THE REPORT'S VARIOUS PROPOSALS FOCUSED AND ADVANCED THE DEBATE BOTH AT THE NRC AND BEFORE THE CONGRESS. ON JUNE 20, 1985, THE COMMISSION HELD A PUBLIC MEETING TO RECEIVE COMMENTS FROM A VARIETY OF PARTIES ON THE REPORT'S RECOMMENDATIONS WITH PARTICULAR ATTENTION GIVEN TO THE LIABILITY LIMITATION ISSUE.

CLEARLY THE LIMITATION ON LIABILITY ISSUE IS THE MOST DIFFICULT AND CONTROVERSIAL OF ALL THE ISSUES ASSOCIATED WITH

EXTENDING THE ACT. THE 1983 REPORT RECOMMENDED THAT THE CONGRESS AMEND THE PRICE-ANDERSON ACT TO SUBSTITUTE AN ANNUAL LIMITATION ON LIABILITY FOR THE PRESENT ABSOLUTE LIMITATION AND TO RAISE THE MAXIMUM RETROSPECTIVE PREMIUMS THAT CAN BE CHARGED FROM THE PRESENT $5 MILLION PER REACTOR PER INCIDENT TO $10 MILLION PER REACTOR PER YEAR. THAT ANNUAL LIMIT WAS TO APPLY TO EXISTING AS WELL AS FUTURE PLANTS. (IT SHOULD BE NOTED FOR THE RECORD THAT THE BODY OF THE 1983 REPORT CONTAINS LANGUAGE RECOMMENDING A LIMIT OF $10 MILLION PER REACTOR PER INCIDENT PER YEAR. HOWEVER, THE COMMISSION'S INTENTION, AS CORRECTLY STATED IN APPENDIX I OF THE REPORT AND SUBSEQUENTLY CONFIRMED BY THE STAFF, WAS TO RECOMMEND A FLAT LIMIT OF $10 MILLION PER REACTOR PER YEAR.)

SEVERAL CRITICISMS OF THIS APPROACH HAVE BEEN INSTRUCTIVE AND PERSUASIVE TO THE COMMISSION MAJORITY. ONE CRITICISM IS THAT THIS APPROACH WOULD UNFAIRLY CHANGE THE ENTIRE BALANCE OF EQUITIES SUPPORTING THE PRICE-ANDERSON SYSTEM BY SHIFTING THE FULL COSTS OF A CATASTROPHIC NUCLEAR ACCIDENT TO UTILITIES WHO COMMITTED TO THE NUCLEAR OPTION UNDER A VASTLY DIFFERENT UNDERSTANDING OF WHAT THEIR LIABILITY WOULD BE. THE SECOND FUNDAMENTAL CRITICISM IS THAT UNDER THE 1983 REPORT RECOMMENDATIONS PUBLIC UTILITY CUSTOMERS IN ONE REGION OF THE COUNTRY WILL INCUR PROLONGED, UNLIMITED FINANCIAL OBLIGATIONS BECAUSE OF AN ACCIDENT ELSEWHERE.

THE COMMISSION RECOGNIZES THAT, AS IN MOST LEGISLATION, A BALANCING OF EQUITIES MUST BE MADE BY THE CONGRESS AND THAT VARIOUS ALTERNATIVES, BASED ON DIFFERENT BALANCES, MIGHT PROVIDE ADEQUATE ASSURANCE THAT ALL PUBLIC LIABILITY CLAIMS COULD BE PAID. A MAJORITY OF COMMISSIONERS -- INCLUDING COMMISSIONER BERNTHAL, COMMISSIONER ROBERTS AND COMMISSIONER ZECH, WHO I SHOULD NOTE WAS NOT ON THE COMMISSION AT THE TIME OF THE 1983 DECISION, -- BELIEVE THAT, OF THE PROPOSALS NOW BEFORE THE CONGRESS, S.1225 OFFERS THE BEST APPROACH. UNDER ITS THREE-LAYER APPROACH TO COMPENSATION, S. 1225 WOULD CONTINUE THE PRICE-ANDERSON SYSTEM FOR NRC'S LARGE POWER REACTOR LICENSEES AND WOULD PROVIDE REASONABLE ASSURANCE OF EQUITABLE AND TIMELY COMPENSATION OF THOSE WHO MIGHT BE INJURED IN ANY MAJOR NUCLEAR POWER PLANT ACCIDENT. COMMISSIONER BERNTHAL DOES BELIEVE, HOWEVER, THAT A HIGHER LIABILITY CEILING FOR REACTOR LICENSEES THAN THAT PROPOSED IN S. 1225 MAY BE DESIRABLE.

SHOULD THE MULTI-LAYER PROTECTION PROVIDED BY S. 1225 BE EXHAUSTED, A MECHANISM IS PROVIDED FOR CONGRESS TO DETERMINE WHETHER AND IF SO WHAT FURTHER ACTION IS DESIRABLE. THE COMMISSION FAVORS THOSE PROVISIONS IN THE BILL THAT PROVIDE A DETAILED DESCRIPTION OF THE MECHANISM THAT THE PRESIDENT AND CONGRESS WOULD USE IN THE HIGHLY IMPROBABLE CASE OF AN ACCIDENT THAT EXHAUSTS ALL FINANCIAL PROTECTION MANDATED IN THE BILL. THIS MECHANISM ENLARGES AND PROVIDES MORE SUBSTANCE TO THE

PRESENT PROVISION IN SUBSECTION 170E. OF THE PRICE-ANDERSON ACT THAT STATES THAT IN THE EVENT OF A NUCLEAR INCIDENT INVOLVING DAMAGES IN EXCESS OF THE AGGREGATE LIABILITY, THE CONGRESS WILL THOROUGHLY REVIEW THE PARTICULAR INCIDENT AND TAKE WHATEVER ACTION IS NECESSARY AND APPROPRIATE TO PROTECT THE PUBLIC.

THE COMMISSION BELIEVES THAT THE PROCEDURES SET FORTH IN S. 1225 FOR CONGRESSIONAL REVIEW AND ACTION ON ADDITIONAL COMPENSATION PLANS ABOVE AND BEYOND THE FUNDS THAT WOULD BE IMMEDIATELY AVAILABLE AFTER AN ACCIDENT ARE PREFERABLE TO OPEN-ENDED EXPOSURE OF A UTILITY'S ASSETS TO LIABILITY CLAIMS.

THE COMMISSION ALSO SUPPORTS THE PROVISION IN S. 1225 THAT PROVIDES FINANCIAL PROTECTION TO THE PUBLIC IN THE EVENT OF A NUCLEAR ACCIDENT FOR DOE CONTRACTOR ACTIVITIES EQUIVALENT TO THE PROTECTION FOR ACTIVITIES OF NRC REACTOR LICENSEES. IT ALSO SUPPORTS THE PROVISIONS FOR CLEARLY STATING THAT PRICE-ANDERSON COVERS ALL HIGH LEVEL RADIOACTIVE WASTE TRANSPORTATION, STORAGE, AND DISPOSAL ACTIVITIES AND PROVIDING SUCH COVERAGE THROUGH DOE.

FINALLY, THE COMMISSION SUPPORTS A 25-YEAR EXTENSION OF THE ACT AS CONTAINED IN S. 1225.

It is important to emphasize that a majority of the Commission still supports the remainder of the recommendations of the 1983 Report. In brief:

(1) The report recommended that the Congress extend the Price-Anderson Act based on the belief that the Act provides a valuable public benefit by establishing a system for the prompt and equitable settlement of public liability claims resulting from a nuclear accident. Extension of the Act would ensure that this valuable benefit continues for future as well as existing nuclear plants

(2) The report recommended that the Congress retain the present statutory language for the finding of an extraordinary nuclear occurrence to establish a definitive basis for distinguishing valid claims and to conserve resources to pay for these claims.

(3) The report recommended that the Congress extend the minimum statute of limitations for filing a public liability claim arising from a nuclear accident from 20 to 30 years in order to provide greater assurance that latent injuries caused by a nuclear accident are provided protection under the Price-Anderson system. The report also recommended a study of experience gained from other

ADMINISTRATIVE SYSTEMS FOR COMPENSATING LATENT INJURY CLAIMS BEFORE ANY FURTHER CHANGES TO THE CAUSATION AND PROOF OF DAMAGES PROVISION OF THE PRICE-ANDERSON ACT.

WE WOULD LIKE TO COMMENT BRIEFLY ON S. 445, INTRODUCED BY SENATOR HART, WHICH WOULD (1) ELIMINATE THE LIMITATION ON LIABILITY PROVISION, (2) ELIMINATE THE "EXTRAORDINARY NUCLEAR OCCURRENCE" PROVISION, MAKING THE WAIVER OF DEFENSES APPLICABLE TO ALL NUCLEAR INCIDENTS, AND (3) ELIMINATE THE STATUTE OF LIMITATIONS FOR FILING DAMAGE CLAIMS.

THE 1983 STUDY DID NOT FAVOR ELIMINATING THE LIABILITY LIMIT. FIRST, IN TERMS OF PROTECTION TO THE PUBLIC, EVEN IF THE LIABILITY LIMIT WERE REMOVED, A UTILITY DEFENDANT WITH THEORETICALLY "UNLIMITED" LIABILITY, BUT WITH A LARGE PROPORTION OF ITS ASSETS IN FIXED PROPERTY AS CONTRASTED WITH MORE LIQUID ASSETS, MAY BE UNABLE TO PAY A JUDGMENT ONCE OBTAINED. IF A UTILITY DEFENDANT'S ASSETS WERE EXHAUSTED BY EARLIER JUDGMENTS, SUBSEQUENT CLAIMS WOULD BE LEFT UNPAID. THUS IT IS FAR FROM CLEAR TO WHAT EXTENT ADDITIONAL FUNDS WOULD IN FACT BE AVAILABLE TO PAY PUBLIC LIABILITY CLAIMS UNDER AN UNLIMITED LIABILITY REGIME.

THE SECOND MAJOR PROVISION IN S. 445 WOULD BE TO ELIMINATE THE "EXTRAORDINARY NUCLEAR OCCURRENCE" CONCEPT FROM THE PRICE-ANDERSON ACT AND REQUIRE THAT THE WAIVER OF DEFENSES

PROVISION BE APPLICABLE TO ALL NUCLEAR INCIDENTS. SUCH A CHANGE WAS EVALUATED IN CONNECTION WITH NRC CONSIDERATION OF THE 1983 REPORT TO THE CONGRESS. THE COMMISSION BELIEVES THAT THE FINDING OF AN EXTRAORDINARY NUCLEAR OCCURRENCE IS USEFUL TO ESTABLISH A DEFINITIVE BASIS FOR VALID CLAIMS AND TO CONSERVE RESOURCES TO PAY FOR THESE CLAIMS.

FINALLY, WITH RESPECT TO S.445, THE COMMISSION IS IN ACCORD WITH THE 1983 REPORT WHICH DID NOT SUPPORT TOTALLY ELIMINATING ANY RIGHT TO PLEAD DEFENSIVELY A STATE STATUTE OF LIMITATIONS IN THE EVENT OF AN EXTRAORDINARY NUCLEAR OCCURRENCE UNDER THE PRESENT PRICE-ANDERSON SYSTEM. TO PROVIDE GREATER ASSURANCE THAT LATENT INJURIES CAUSED BY A NUCLEAR ACCIDENT ARE PROVIDED PROTECTION, THE COMMISSION CONTINUES TO SUPPORT AN INCREASE TO 30 YEARS FROM THE CURRENT 20-YEAR PERIOD IN WHICH THOSE INDEMNIFIED WAIVE A RIGHT TO PLEAD ANY STATE STATUTE OF LIMITATIONS. THE INHERENT DIFFICULTIES IN PROVING THAT LATENT INJURIES WERE CAUSED BY THE NUCLEAR ACCIDENT AND NOT BY SOME OTHER FACTOR OR COMBINATION OF FACTORS APPEAR TO US TO ARGUE FOR SOME FINAL CUTOFF TO LITIGATION ONCE A GENEROUS ALLOWANCE HAS BEEN MADE FOR ACCOMMODATING THOSE INJURIES.

WE WOULD ALSO LIKE TO PROVIDE THE FOLLOWING COMMENTS ON S.1761 INTRODUCED BY SENATOR STAFFORD. WE BELIEVE IN GENERAL THAT S.1761 IS CONSISTENT WITH THE RECOMMENDATIONS FOR LEGISLATION TO AMEND AND EXTEND THE PRICE-ANDERSON ACT AS PROPOSED BY THE COMMISSION IN DECEMBER, 1983 IN NUREG-0957.

As we explained in our comments on S.1225 a majority of the current Commissioners believes that the goals of Price-Anderson are more realistically and equitably met by not eliminating the concept of an absolute limitation on liability and by not placing utilities with no involvement in a nucelar accident open to continuing annual assessments for the same accident. Consistent with those views, the Commission favors the approach of S.1225 and does not support those measures of S.1761 which adopted the continuing annual liability approach. The Commission as a whole supports a new element presented by Senator Stafford's bill, specifically the provision that would explicitly exclude coverage of punitive damages by the Price-Anderson system. Moreover, the Commission strongly believes that at the very least payment of punitive damages should not be allowed to displace payment for compensatory damages under any Price-Anderson system that Congress may adopt.

The Commission does not support the proposed amendment to S.1761 to permit litigation by any utility to recover funds paid as a retrospective premium from any person who may be liable for the damages of the nuclear accident including the utility otherwise indemnified by Price-Anderson. Such an amendment, if adopted would undercut the Price-Anderson system so that a utility would be exposed to substantial financial liability with no known means of securing protection.

In connection with its comments on S.1225 the Commission indicated support for a twenty-five year extension of the Act. Nonetheless, we would have no objection to a fifteen year extension provided in S.1761. Similarly, as we pointed out in our comments on S.1225, we would support the provisions in S.1761 that clearly state that Price-Anderson covers all high-level waste transportation, storage, and disposal activities and provides such coverage through DOE.

Having expressed the Commission's views succintly, because Commissioner Asselstine and I continue to favor the Commission's 1983 recommendations for legislation, I would like to take the time to expand on the ways that S.1761 implements and is consistent with those recommendations.

S.1761 eliminates Price-Anderson's absolute aggregate liability limit provision. Instead it limits the funds paid out for public liability in any one year, for incidents covered by the industry retrospective rating plan, exclusively to the amount of financial protection provided. This provision would seem to have the same effect as the Commission's 1983 recommendation to impose an annual limit on liability.

The 1983 Commission had recommended raising the maximum retrospective premium that can be charged a reactor licensee from the present $5 million per reactor per incident to $10 million per reactor per year. Commissioner Asselstine and I

STILL FAVOR THIS APPROACH. S.1761 PROVIDES THE COMMISSION WITH THE AUTHORITY TO ESTABLISH THE MAXIMUM DEFERRED PREMIUM AT NOT LESS THAN $10 MILLION NOR MORE THAN $15 MILLION PER REACTOR PER YEAR. WHILE I SUPPORT A $10 MILLION ANNUAL PREMIUM, I DO NOT SUPPORT A PREMIUM OF $15 MILLION PER REACTOR PER YEAR.

S.1761 RETAINS THE PRESENT DEFINITION OF AN EXTRAORDINARY NUCLEAR OCCURRENCE (ENO) CONSISTENT WITH THE 1983 COMMISSION RECOMMENDATIONS THAT THE CONGRESS RETAIN THE PRESENT STATUTORY LANGUAGE FOR THE FINDING OF AN ENO. S.1761 MODIFIES THE STATUTE OF LIMITATIONS FOR FILING A PUBLIC LIABILITY CLAIM ARISING FROM AN ENO FROM 20 TO 30 YEARS WHICH IS ALSO CONSISTENT WITH COMMISSION RECOMMENDATIONS. S.1761 EXTENDS THE WAIVER PROVISIONS OF PRICE-ANDERSON TO ALL SITUATIONS IN WHICH FINANCIAL PROTECTION IS REQUIRED. AGAIN, THE COMMISSION IN 1983 RECOMMENDED EXAMINING SUCH APPLICABILITY OF THE WAIVER.

S.1761 ALSO CONTAINS A NUMBER OF PROVISIONS WHICH COULD IMPLEMENT THE MAJOR RECOMMENDATIONS MADE IN NUREG-0957. NUREG-0957 DID NOT GET INTO THIS DETAIL OF IMPLEMENTATION. THESE INCLUDE THE FOLLOWING:

(1) ELIMINATING THE CONGRESSIONAL REVIEW PROVISION FOR NUCLEAR INCIDENTS AT REACTORS UNDER THE INDUSTRY RETROSPECTIVE RATING PLAN.

SINCE ALL CLAIMS WILL BE PAID EVENTUALLY, THERE WOULD BE NO NEED FOR CONGRESS TO EVALUATE WHETHER ADDITIONAL APPROPRIATIONS ARE NECESSARY. ALTHOUGH THERE IS NO PROVISION FOR SPECIFIC CONGRESSIONAL INVOLVEMENT, CONGRESS ALWAYS HAS THE RIGHT TO MODIFY, REVIEW OR TAKE ANY ADDITIONAL ACTION IT DEEMS NECESSARY AND APPROPRIATE EITHER BEFORE OR AFTER AN ACCIDENT OCCURS.

(2) ESTABLISHING PROVISIONS PROVIDING FOR THE APPORTIONING OF RETROSPECTIVE PREMIUMS AMONG CLAIMANTS FOR MULTIPLE NUCLEAR INCIDENTS IN ANY ONE YEAR.

AS DISCUSSED EARLIER, IT WAS THE COMMISSION'S INTENTION IN 1983 THAT THE MAXIMUM ANNUAL RETROSPECTIVE PAYMENT BE AVAILABLE FOR THE AGGREGATE OF ALL NUCLEAR INCIDENTS IN A YEAR RATHER THAN BEING AVAILABLE PER INCIDENT. THUS, IT IS NECESSARY TO DETERMINE THE APPORTIONMENT OF THE FUNDS AMONG DIFFERENT INCIDENTS IN THE EXTREMELY UNLIKELY EVENT THAT THERE ARE PUBLIC LIABILITY CLAIMS FOR MORE THAN

ONE INCIDENT IN ANY ONE YEAR. IF THERE IS MORE THAN ONE NUCLEAR INCIDENT, THE TOTAL RETROSPECTIVE PREMIUM FUND WOULD BE APPORTIONED EQUALLY AMONG THE NUCLEAR INCIDENTS. IF THE CLAIMS FROM ANY INCIDENT IN ANY YEAR WERE LESS THAN THE PRO RATA SHARE OF THE TOTAL FUND THAT WOULD BE AVAILABLE FOR CLAIMS FROM THAT INCIDENT, THE BALANCE WOULD BE AVAILABLE TO APPORTION TO THE CLAIMANTS FROM THE OTHER INCIDENTS.

(3) INCREASING THE AMOUNT OF FUNDS THAT CAN BE PAID WITHOUT PRIOR COURT APPROVAL IN THE CASE OF A NUCLEAR INCIDENT INVOLVING THE RETROSPECTIVE PREMIUM RATING PLAN FROM FIFTEEN PERCENT TO THIRTY-THREE AND ONE-THIRD PERCENT OF THE AMOUNT OF FINANCIAL PROTECTION AVAILABLE.

SINCE FUNDS WOULD BE AVAILABLE EVENTUALLY TO PAY ALL OF THE CLAIMS THAT A COURT DETERMINED TO BE LEGALLY VALID AND WHICH AROSE FROM A NUCLEAR INCIDENT, IT APPEARS REASONABLE TO INCREASE THE AMOUNT OF FUNDS THAT CAN BE PAID OUT PRIOR TO A COURT APPROVED PLAN SO THAT EMERGENCY ASSISTANCE CLAIMS ARE CONSIDERED, PAID AT THE EARLIEST POSSIBLE TIME, AND NOT DELAYED UNTIL A PLAN FOR DISPOSITION OF FUNDS IS SUBMITTED AND APPROVED.

S.1761 ALSO:--

(1) EXTENDS THE PRICE-ANDERSON ACT FOR FIFTEEN YEARS, I.E., TO AUGUST 1, 2002;

(2) ESTABLISHES PRICE-ANDERSON INDEMNITY PROVIDED TO THE DEPARTMENT OF ENERGY UNDER SUBSECTION 170D. OF THE PRICE-ANDERSON ACT AS THE EXCLUSIVE MEANS OF INDEMNIFICATION FOR THE TRANSPORTATION, STORAGE AND DISPOSAL OF SPENT NUCLEAR FUEL AND HIGH-LEVEL RADIOACTIVE WASTE;

(3) EXCLUDES PUNITIVE DAMAGES FROM PRICE-ANDERSON COVERAGE.

I SHOULD NOTE FINALLY THAT COMMISSIONER ASSELSTINE AND I CONTINUE TO SUPPORT THE RECOMMENDATIONS CONTAINED IN NUREG-0957 AND SPECIFICALLY PREFER THE RECOMMENDATION THAT CONGRESS AMEND PRICE-ANDERSON TO SUBSTITUTE AN ANNUAL LIMITATION ON LIABILITY OF $10 MILLION PER REACTOR PER YEAR FOR THE PRESENT ABSOLUTE LIMITATION. I WOULD BE WILLING TO CONSIDER OTHER ALTERNATIVES WHICH HAVE AS THEIR OBJECTIVE ADEQUATE ASSURANCE THAT ALL PUBLIC LIABILITY CLAIMS COULD BE PAID, PARTICULARLY IF THE COMMISSION'S 1983 RECOMMENDATION IS NOT GOING TO BE ACCEPTED BY CONGRESS.

THAT CONCLUDES THE COMMISSION'S PREPARED TESTIMONY. THANK YOU.

WE WOULD BE PLEASED TO RESPOND TO ANY QUESTIONS THAT YOU MAY HAVE.

RESPONSES FROM THE NUCLEAR REGULATORY COMMISSION
TO PREHEARING QUESTIONS

QUESTION 1. -- PLEASE PROVIDE A STATE-BY-STATE BREAKDOWN OF THE FINANCIAL IMPACT OF THE PROPOSAL IN NUREG-0957 TO ASSESS NUCLEAR UTILITIES A RETROSPECTIVE PREMIUM IN THE AMOUNT OF $10 MILLION PER REACTOR PER YEAR IN THE EVENT OF A NUCLEAR ACCIDENT. IN THE ANALYSIS, ASSUME THREE DIFFERENT ASSESSMENT SCENARIOS: AN ANNUAL ASSESSMENT FOR

(1) FIVE YEARS;
(2) TWENTY YEARS; AND
(3) FIFTY YEARS.

BASED UPON COMMERCIAL NUCLEAR REACTORS OPERATING IN, OR OWNED BY COMPANIES LOCATED IN, EACH STATE, HOW MUCH MONEY WOULD BE COLLECTED UNDER EACH OF THESE SCENARIOS FROM INDIVIDUAL STATES, ON BOTH AN ANNUAL AND A CUMULATIVE BASIS?

ANSWER.

THIS COMPUTATION BY THE NRC STAFF IS ENCLOSED. THIS TABLE SHOWS THE RETROSPECTIVE PREMIUMS THAT COULD BE COLLECTED FROM UTILITIES ACCORDING TO THE STATES WHERE THE UTILITIES HAVE THEIR HEADQUARTERS. NO MONEY IS ANTICIPATED TO BE COLLECTED "FROM INDIVIDUAL STATES."

ENCLOSURE:
TABLE

FINANCIAL IMPACT BY STATE ON UTILITIES OPERATING REACTORS OVER 100 MW(E) OF $10 MILLION PER REACTOR PER YEAR ASSESSMENT

	Reactors Per State	Dollars Collected (In Millions) After Selected Years			
		1	5	20	50
Alabama	5.0	50.0	250.0	1,000.0	2,500.0
Arkansas	2.0	20.0	100.0	400.0	1,000.0
Arizona	0.5229	5.229	26.145	104.58	261.45
California	6.2171	62.171	310.855	1,243.42	3,108.55
Colorado	1.0	10.0	50.0	200.0	500.0
Connecticut	2.52	25.2	126.0	504.0	1,260.0
Delaware	0.2984	2.984	14.92	59.68	149.2
Florida	5.0	50.0	250.0	1,000.0	2,500.0
Georgia	2.0	20.0	100.0	400.0	1,000.0
Illinois	9.5	95.0	475.0	1,900.0	4,750.0
Iowa	1.5	15.0	75.0	300.0	750.0
Kansas	1.0	10.0	50.0	200.0	500.0
Louisiana	2.0	20.0	100.0	400.0	1000.0
Maine	0.695	6.95	34.75	139.0	347.5
Maryland	2.0	20.0	100.0	400.0	1,000.0
Massachusetts	2.95	29.5	147.5	590.0	1,475.0
Michigan	4.0	40.0	200.0	800.0	2,000.0
Minnesota	3.0	30.0	150.0	600.0	1,500.0
Mississippi	1.0	10.0	50.0	200.0	500.0
Missouri	1.0	10.0	50.0	200.0	500.0
Nebraska	2.0	20.0	100.0	400.0	1,000.0
New Hampshire	0.21	2.1	10.5	42.0	105.0
New Jersey	3.5	35.0	175.0	700.0	1,750.0
New Mexico	0.102	1.02	5.1	20.4	51.0
New York	7.0	70.0	350.0	1,400.0	3,500.0
North Carolina	4.5625	45.625	228.125	912.5	2,281.25
Ohio	1.35	13.5	67.5	270.0	675.0
Oregon	1.0	10.0	50.0	200.0	500.0
Pennsylvania	6.8516	68.516	342.58	1,370.32	3,425.8
South Carolina	5.4375	54.375	271.875	1,087.5	2,718.75
Tennessee	2.0	20.0	100.0	400.0	1,000.0
Texas	0.158	1.58	7.9	31.6	79.0
Vermont	0.625	6.25	31.25	125.0	312.5
Virginia	4.0	40.0	200.0	800.0	2,000.0
Washington	1.0	10.0	50.0	200.0	500.0
Wisconsin	3.0	30.0	150.0	600.0	1,500.0

THIS TABLE IS BASED ON UTILITY HEADQUARTERS LOCATIONS BY STATE AND INCLUDES LICENSEES FOR 96 REACTORS INCLUDING PARTIAL OWNERS. HOWEVER, IN TWO INSTANCES THE REACTORS ARE INCLUDED IN THE STATES WHERE THEY ARE SITED AND IN WHICH THE UTILITIES HAVE A SUBSTANTIAL SERVICE AREA (MICHIGAN-COCK PLANT; ALABAMA-BROWNS FERRY). WITH THESE TWO EXCEPTIONS, THE TABLE DOES NOT ACCOUNT FOR UTILITY SERVICE AREAS. THE USE OF SERVICE AREAS WOULD MORE EVENLY DISTRIBUTE THE FINANCIAL IMPACT OVER A LARGER NUMBER OF STATES.

ENCLOSURE TO QUESTION 1.

QUESTION 2. - WOULD PARTICIPATION IN THE ANNUAL ASSESSMENT SCHEME DESCRIBED IN NUREG-0957 BE A MANDATORY CONDITION OF RECEIVING AN OPERATING LICENSE FROM THE NRC? IF SO, WOULD THE COMMISSION EXPECT THAT THIS EXPENSE WOULD BE PASSED ON BY STATE PUBLIC UTILITY COMMISSIONS TO THE RATEPAYERS? IN THIS REGARD, PLEASE EXPLAIN THE FOLLOWING STATEMENT ON PAGE H-11 OF NUREG-0957: "OVER THE LONGER TERM, MANY UTILITIES COULD BE ALLOWED BY THEIR STATE PUBLIC UTILITY COMMISSION TO RECOVER PART IF NOT ALL OF THE COST OF RETROACTIVE ASSESSMENTS IN THEIR RATES."

ANSWER.

IF THE ANNUAL ASSESSMENT SCHEME BECAME INCORPORATED IN THE PRICE-ANDERSON LEGISLATION, PRESUMABLY THE REQUIREMENT TO MAINTAIN FINANCIAL PROTECTION AT THE MAXIMUM LEVEL PRESCRIBED IN THE LAW WOULD BE A LICENSE CONDITION FOR EVERY OPERATING LICENSE ISSUED TO A NUCLEAR POWER REACTOR AUTHORIZED TO OPERATE ABOVE 100 MWE. THE ACT WOULD THEN FURTHER PRESCRIBE THAT FINANCIAL PROTECTION FOR SUCH REACTORS WOULD INCLUDE THE ANNUAL ASSESSMENT SCHEME. WITH RESPECT TO THE COMMISSION'S EXPECTATION THAT THE EXPENSE WOULD BE PASSED ON TO THE RATEPAYERS, THE STAFF'S

"ADDITIONAL INFORMATION ON RETROSPECTIVE NUCLEAR LIABILITY INSURANCE PROPOSED BY NRC," (APRIL 1985) CONCLUDES ON P. 13, "THUS, THE POLICY AND HISTORY OF PUC RATE REGULATION SUGGESTS THAT RETROSPECTIVE PREMIUMS SHOULD REASONABLY BE PASSED ON TO CUSTOMERS. WHAT CANNOT BE FORESEEN ARE POLITICAL, PUBLIC AND POSSIBLY ECONOMIC PRESSURES IN SOME FUTURE CIRCUMSTANCE THAT MIGHT LEAD A PUC TO DENY A UTILITY THE RIGHT TO RECOVER SUCH PREMIUMS FROM ITS CUSTOMERS. EXPERIENCE SHOWS THAT IT IS ENTIRELY REASONABLE FOR A UTILITY TO EXPEND FUNDS FOR A PURPOSE THAT IS REQUIRED BY GOVERNMENT, AND TO RECOVER THAT EXPENSE FROM CUSTOMERS. BUT EXPERIENCE ALSO SHOWS THAT PUC DECISIONS SOMETIMES DEVIATE FROM ESTABLISHED PRECEDENTS."

THE STATEMENT ON P. H-11 OF NUREG-0957 IS IN A FOOTNOTE WHICH EMPHASIZED THAT WHILE THE ESTIMATES OF THE POTENTIAL FINANCIAL BURDENS OF INCREASED ASSESSMENTS OF RETROSPECTIVE PREMIUMS ARE BASED ON THE CONSERVATIVE ASSUMPTION THAT THE RETROACTIVE ASSESSMENTS WOULD NOT BE RECOVERED THROUGH RATES, THE STAFF ANTICIPATED THAT MUCH, IF NOT ALL, OF THE RETROACTIVE ASSESSMENTS COULD, IN FACT, BE COLLECTED THROUGH RATES.

QUESTION 3. BASED UPON THE REMAINING OPERATING LIFE OF CURRENTLY-LICENSED NUCLEAR REACTORS OVER 100 MEGAWATTS, AND INCLUDING NEW REACTORS THAT WILL BE COMING ON LINE, HOW MANY "REACTOR YEARS" OF OPERATION WILL THERE BE FROM AUGUST 1, 1987 UNTIL ALL REACTORS CEASE OPERATION? (ASSUME NO NEW ADDITIONAL REACTOR ORDERS. IN ADDITION, EXPLAIN THE ASSUMPTIONS THAT YOU MAKE REGARDING REACTORS UNDER CONSTRUCTION BUT YET TO BE LICENSED.)

ANSWER.

ASSUMING NO REACTOR LICENSE RENEWALS, THERE WILL BE APPROXIMATELY 3200 "REACTOR YEARS" OF OPERATION FROM AUGUST 1, 1987 UNTIL ALL REACTORS CEASE OPERATION UNDER THEIR CURRENT OPERATING LICENSES. IN MAKING THIS CALCULATION, 25 PLANTS, IN ADDITION TO THE 95 OVER 100 MWE WHICH ARE CURRENTLY IN THE RETROSPECTIVE INSURANCE LAYER, ARE ASSUMED TO RECEIVE OPERATING LICENSES. THE MOST CURRENT NRC ESTIMATE IS THAT SEVEN ADDITIONAL OPERATING LICENSES WILL BE ISSUED IN 1985, TEN IN 1986, AND EIGHT IN 1987 OR BEYOND. THE FOLLOWING TABLE SHOWS REMAINING YEARS BY REACTOR BASED ON CURRENT OPERATING LICENSES.

ENCLOSURE:
TABLE

Operating License Issuance Dates,
Expiration Dates and Remaining Years of Operating License

UNIT NAME	DATE OF INITIAL OPERATING LICENSE	DATE OF LICENSE EXPIRATION	YEARS OF OPERATING LICENSE REMAINING AFTER AUGUST 1, 1987
Dresden 1	9/00/59	5/4/96	9
Yankee-Rowe	7/9/60	11/4/97	10
Indian Point 1	3/00/62	*	10
San Onofre 1	3/27/67	9/27/02**	15
Haddam Neck	6/30/67	5/26/04	17
Oyster Creek	4/9/69	4/9/04**	17
Nine Mile Point 1	8/22/69	4/11/05	18
Ginna	9/19/69	4/25/06	19
Dresden 2	12/22/69	12/22/04**	17
Robinson 2	7/31/70	4/13/07	20
Monticello	9/8/70	6/19/07	20
Point Beach 1	10/5/70	7/19/07	20
Millstone 1	10/6/70	10/7/05**	18
Dresden 3	1/12/71	10/14/06	19
Palisades	3/24/71	3/1/06**	19
Quad-Cities 1	10/1/71	2/15/07	20
Indian Point 2	10/19/71	10/14/06	19
Point Beach 2	11/16/71	7/25/08	21
Vermont Yankee	3/21/72	12/11/07	20
Quad-Cities 2	3/31/72	2/15/07	19
Surry 1	5/25/72	6/25/08	21
Pilgram 1	6/8/72	8/26/08	21
Turkey Point 3	7/19/72	4/27/07	20
Maine Yankee	9/15/72	10/21/08	21
Surry 2	1/29/73	6/25/08	21
Oconee 1	2/6/73	11/6/07	20
Zion 1	4/6/73	12/26/08	21
Turkey Point 4	4/10/73	4/27/07	20
Ft. Calhoun	5/23/73	6/7/08	21
Browns Ferry 1	6/26/73	5/10/07	20
Peach Bottom 2	8/8/73	1/31/08	20
Prairie Island 1	8/9/73	6/25/08	21
Oconee 2	10/6/73	11/6/07	20
Zion 2	11/14/73	12/26/08	20
Ft. St. Vrain	12/21/73	9/17/08	21
Kewaunee	12/21/73	8/6/08	21
Cooper	1/18/74	6/4/08	21
Duane Arnold	2/22/74	6/21/10	23
Three Mile Island 1	4/19/74	5/18/08	21
Arkansas 1	5/21/74	12/6/08	21
Browns Ferry 2	6/28/74	5/10/07	20
Peach Bottom 3	7/2/74	1/31/08	20
Oconee 3	7/19/74	11/6/07	20

* Assumed operating license will be for 35 years beyond date of operating license issuance.

**License is in the process of renewal. These units have provisional licenses, but not full term licenses. Assumed will have operating licenses to 35 years beyond date of provisional license issuance.

Enclosure to Question 3

UNIT NAME	DATE OF INITIAL OPERATING LICENSE	DATE OF LICENSE EXPIRATION	YEARS OF OPERATING LICENSE REMAINING AFTER AUGUST 1, 1987
Calvert Cliffs 1	7/31/74	7/7/09	22
Hatch 1	8/6/74	9/30/09	22
Rancho Seco	8/16/74	10/11/08	21
Fitzpatrick	10/17/74	5/20/10	23
Cook 1	10/25/74	3/25/09	22
Prairie Island 2	10/29/74	6/25/08	21
Brunswick 2	12/27/74	2/6/10	22
Millstone 2	8/1/75	12/11/10	23
Trojan	11/21/75	2/8/11	23
Indian Point 3	12/12/75	8/13/09	22
Beaver Valley 1	1/30/76	6/25/10	23
St. Lucie 1	3/1/76	7/1/10	23
Browns Ferry 3	7/2/76	7/21/08	21
Calvert Cliffs 2	8/13/76	7/7/09	22
Salem 1	8/13/76	9/25/08	21
Brunswick 1	9/8/76	2/7/10	22
North Anna 1	11/26/76	2/18/11	23
Davis-Besse 1	4/22/77	3/24/11	24
Farley 1	6/25/77	8/16/12	25
Crystal River 3	12/3/77	9/25/08	21
Cook 2	12/23/77	3/25/09	22
Hatch 2	6/13/78	12/27/12	25
Three Mile Island 2	2/8/78	11/4/09	22
Arkansas 2	7/18/78	12/6/12	25
Sequoyah 1	2/29/80	5/27/10	23
North Anna 2	4/11/80	2/19/11	23
Farley 2	10/23/80	8/16/12	25
Salem 2	4/16/80	9/25/08	21
McGuire 1	6/12/81	2/28/13	25
Sequoyah 2	6/25/81	5/27/10	23
Diablo Canyon 1	4/19/84	4/23/08	21
San Onofre 2	2/16/82	10/18/13	26
LaSalle 1	4/17/82	4/17/22	35
Grand Gulf 1	6/16/82	6/16/22	35
Susquehanna 1	7/17/82	7/17/22	35
Summer	8/6/82	3/21/13	26
McGuire 2	3/3/83	2/28/13	25
San Onofre 3	11/15/82	10/18/13	26
St. Lucie 2	4/6/83	4/6/23	36
LaSalle 2	12/16/83	12/16/23	36
WNP-2	12/20/83	12/20/23	36
Susquehanna 2	3/23/84	3/23/24	34
Callaway	6/11/84	10/18/24	37
Catawba 1	12/6/84	12/6/24	37
Limerick 1	10/26/84	10/26/24	37
Byron 1	10/31/84	10/31/24	37
Shoreham	12/7/84	4/13/13	26
Waterford 3	12/18/84	12/18/24	37
Palo Verde 1	12/31/84	12/31/24	37
Wolf Creek	3/11/85	3/11/25	38
Fermi 2	3/20/85	3/20/25	38
Diablo Canyon 2	4/26/85	12/9/10	23

UNIT NAME	ESTIMATED DATE OF LICENSE ISSUANCE	YEARS OF OPERATING LICENSE REMAINING AFTER AUGUST 1, 1987
COMANCHE PEAK 1	1985	38
WATTS BAR 1	1985	38
RIVER BEND 1	1985	38
PERRY 1	1985	38
MILLSTONE 3	1985	38
PALO VERDE 2	1985	38
CATAWBA 2	1985	38
COMANCHE PEAK 2	1986	39
CLINTON 1	1986	39
HOPE CREEK	1986	39
NINE MILE POINT 2	1986	39
HARRIS 1	1986	39
BRAIDWOOD 1	1986	39
SEABROOK 1	1986	39
BYRON 2	1986	39
VOGTLE	1986	39
SOUTH TEXAS	1986	39
WATTS BAR 2	1987 OR LATER	40
PALO VERDE 3	1987 OR LATER	40
BEAVER VALLEY 2	1987 OR LATER	40
BRAIDWOOD 2	1987 OR LATER	40
BELLEFONTE 1	1987 OR LATER	40
WNP-3	1987 OR LATER	40
MIDLAND 1	1987 OR LATER	40
WNP-1	1987 OR LATER	40

TOTAL ESTIMATED YEARS OF "REACTOR YEARS" AFTER AUGUST 1, 1987. 3193

QUESTION 4. ON PAGE I-1 OF NUREG-0957, THE FOLLOWING STATEMENT IS MADE:

> "THIS METHODICAL BUILDUP OF CLAIMS MIGHT TRACK REASONABLY CLOSELY WITH THE PROVISION OF FUNDS THROUGH THE COLLECTION OF THE RETROSPECTIVE PREMIUMS FROM ALL THE UTILITIES THAT WOULD BE PARTICIPATING IN THE SECONDARY FINANCIAL PROTECTION PROGRAM."

EXPLAIN THE BASIS FOR THIS STATEMENT. PROVIDE ALL DOCUMENTS THAT THE COMMISSION HAS PREPARED ANALYZING THE ISSUE OF LATENT CLAIMS, AND THE BASIS FOR THE CONCLUSION THAT THOSE CLAIMS "MIGHT TRACK REASONABLY CLOSELY" WITH THE FUNDS GENERATED UNDER THE PROPOSAL IN NUREG-0957.

ANSWER.

IT WAS THE JUDGMENT OF THOSE MEMBERS OF THE NRC STAFF WHO DRAFTED THIS APPENDIX THAT THE AWARD OF CLAIMS MAY BE SPREAD OVER A PERIOD OF TIME THAT WOULD CORRESPOND TO THE PERIOD OF COLLECTION OF RETROSPECTIVE PREMIUMS. FOR EXAMPLE, CLAIMS FOR PERSONAL INJURY, EVACUATION, LOST WAGES AND IMMEDIATE DECONTAMINATION WOULD BE EXPECTED TO MATERIALIZE AND BE SETTLED VERY QUICKLY.

OTHER CLAIMS PERTAINING TO VARIOUS ECONOMIC LOSSES, MORE ELABORATE DECONTAMINATION, LATENT INJURIES, AND NON-COMPENSATORY CLAIMS MAY DEVELOP OR BE ADJUDICATED OVER A LONGER TIME SPAN. A POTENTIAL STREAM OF FUNDS OF $1 BILLION OR MORE A YEAR MIGHT BE SUFFICIENT TO TRACK THIS DEVELOPMENT OF CLAIMS AND AWARDS WITHOUT THE NECESSITY OF REQUIRING A DELAY IN THE FULL PAYMENT OF CLAIMS IN ANY PARTICULAR YEAR.

ON THE OTHER HAND, ON PAGE I-5, UNDER THE HEADING "PROBLEMS WITH THE PROPOSAL," THE STAFF EXPLICITLY RECOGNIZED THAT "A PROBLEM COULD BE CREATED IF THE PUBLIC LIABILITY, IN THE FORM EITHER OF JUDGMENTS PRONOUNCED BY THE COURT OR OUT-OF-COURT ADMINISTRATIVE SETTLEMENTS, EMERGED SIGNIFICANTLY FASTER THAN THE FUNDS PROVIDED THROUGH THE PRIMARY AND SECONDARY LAYERS OF FINANCIAL PROTECTION. THE STATUTE WOULD LIMIT LIABILITY IN ANY ONE YEAR RESULTING IN POSSIBLE FAILURE IN ANY ONE YEAR FOR ALL CLAIMANTS TO RECEIVE THE FULL AMOUNT OF THEIR AWARDS FOR THAT YEAR."

ALL DOCUMENTS RELATED TO THE DRAFTING OF NUREG-0957, INCLUDING THE SUBJECT MATTER OF THIS QUESTION, WERE MADE AVAILABLE TO THE COMMITTEE'S STAFF ON JULY 18, 1985.

QUESTION 5. In preparing NUREG-0957, did the Commission or the Commission staff consider whether the proposal for an annual, open-ended assessment on utilities not responsible for an accident was an equitable system for (1) those who are adjudged to have compensable public liability claims; (2) those who would be required under this approach to pay those claims?

ANSWER.

On June 20, 1985, the staff responded in an open Commission meeting to a number of questions raised by Commissioner Zech. The answer to Commissioner Zech's Question addresses the staff's thoughts with respect to the equity of placing a substantial unlimited liability in the form of retrospective premiums on the ratepayers served by utilities with a large number of operating plants for acts or omissions of a utility which has the accident. That Question and its response are enclosed.

Enclosure:
As stated

QUESTION FROM COMMISSIONER ZECH:

> WHY DOES THE STAFF BELIEVE IT EQUITABLE TO PLACE SUBSTANTIAL UNLIMITED LIABILITY IN THE FORM OF RETROSPECTIVE PREMIUMS ON A UTILITY WITH A LARGE NUMBER OF OPERATING PLANTS? WHY SHOULD THE RATEPAYERS SERVED BY SUCH A UTILITY BE SUBJECTED TO PROLONGED PAY-OFFS FOR THE ACTS OR OMISSIONS OF A UTILITY WHICH HAS THE ACCIDENT?

NRC STAFF ANSWER.

THE KEY PHRASE IN THIS QUESTION APPEARS TO THE STAFF TO BE "PROLONGED PAY-OFFS." THE QUESTION OF EQUITY WITH RESPECT TO RETROSPECTIVE PREMIUMS PLACED ON A UTILITY WITH A LARGE NUMBER OF OPERATING PLANTS FOR THE ACTS OR OMISSIONS OF ANOTHER UTILITY WHICH HAS THE ACCIDENT WAS ADDRESSED AND PRESUMABLY RESOLVED WHEN THE UTILITY INDUSTRY SUPPORTED THE 1975 AMENDMENTS TO THE PRICE-ANDERSON ACT WHICH FIRST INTRODUCED THE IDEA OF RETROSPECTIVE PREMIUMS FOR NUCLEAR LIABILITY. IN FACT THE USE OF SIMILAR ASSESSMENTS FOR NUCLEAR PROPERTY INSURANCE INCLUDING AS AN INHERENT ELEMENT THE PLACEMENT OF A GREATER BURDEN ON UTILITIES WITH A LARGE NUMBER OF OPERATING PLANTS, WAS PUT INTO PLACE BY THE UTILITIES THEMSELVES WITHOUT ANY FEDERAL LEGISLATION PRIOR TO THE PRICE-ANDERSON AMENDMENTS. ADMITTEDLY THE POTENTIAL FOR RETROSPECTIVE PREMIUMS TO CONTINUE TO BE PAID OVER A NUMBER OF YEARS INTRODUCES A NEW ELEMENT THAT IS PROBABLY UNIQUE IN ANY ENTERPRISE. THE QUESTION OF WHETHER IT IS EQUITABLE CAN NOT BE VIEWED IN ISOLATION. RATHER, THE QUESTION SHOULD BE WHETHER IT IS MORE OR LESS EQUITABLE THAN HAVING THE BURDEN FALL ON THE TAXPAYERS OR THE VICTIMS OF THE ACCIDENT.

ENCLOSURE TO QUESTION 5.

QUESTION 6. AT THE TIME NUREG-0957 WAS PREPARED, DID EITHER THE EXECUTIVE LEGAL DIRECTOR OR THE OFFICE OF THE GENERAL COUNSEL PREPARE AN ANALYSIS OF THE CONSTITUTIONALITY OF THE APPROACH RECOMMENDED IN NUREG-0957? IF SO, PLEASE PROVIDE ANY SUCH ANALYSIS. IF NOT, WHY NOT?

ANSWER.

BEFORE THE ACT WAS LAST AMENDED IN 1975, THE COMMISSION RECOGNIZED THAT THE CHANGES THEN PROPOSED, IF ENACTED, MIGHT BE CHALLENGED BY POWER REACTOR LICENSEES AS BEING UNCONSTITUTIONAL. NO SUCH CHALLENGE OCCURRED. THE COMMISSION RECOGNIZES, BASED UPON RECENT STATEMENTS MADE BY INDUSTRY REPRESENTATIVES AND THE NUCLEAR LIABILITY INSURANCE POOLS, THE POSSIBILITY THAT THE COMMISSION'S PROPOSAL THAT AN ANNUAL LIMITATION OF LIABILITY REPLACE THE PRESENT ABSOLUTE LIMIT, IF ENACTED, MIGHT BE CHALLENGED AS UNCONSTITUTIONAL.

THE COMMISSION HAS NOT CONDUCTED THE DETAILED LEGAL RESEARCH THAT WOULD BE NECESSARY TO OFFER ANY FIRM LEGAL OPINION ON THE CONSTITUTIONALITY OF LEGISLATION -- EITHER THAT PASSED IN 1975 OR THAT PROPOSED IN NUREG-0957 -- THAT WOULD APPLY MAJOR CHANGES IN LIABILITY TO EXISTING LICENSEES. DETAILED RESEARCH WAS NOT PERFORMED IN 1983 BECAUSE THE COMMISSION BELIEVED, AT THE TIME

THAT NUREG-0957 WAS PREPARED, THAT THE RECOMMENDATION IN NUREG-0957 WAS ANALOGOUS TO THE 1975 LEGISLATIVE IMPOSITION OF THE RETROSPECTIVE LAYER OF FINANCIAL PROTECTION ON ALL LICENSEES. THE COMMISSION RECOGNIZES THAT AN ARGUMENT CAN BE MADE THAT THE 1975 LEGISLATION AND THE NUREG-0957 RECOMMENDATIONS ARE NOT ANALOGOUS AND THAT, GIVEN THE LACK OF JUDICIAL CHALLENGE THE 1975 LEGISLATION, ENACTMENT OF THE 1975 LEGISLATION DOES NOT ABSOLUTELY SETTLE ALL CONSTITUTIONAL ISSUES THAT MAY BE RAISED.

COMMISSIONER ZECH ADDS:

I WAS NOT A COMMISSIONER EITHER IN 1975 OR 1983. I HAVE NO VIEW ON WHY LEGAL RESEARCH ON CONSTITUTIONAL ISSUES RELATED TO PROPOSALS TO AMEND THE PRICE-ANDERSON ACT WAS OR WAS NOT CONDUCTED.

QUESTION 7. IN A MEMORANDUM DATED APRIL 12, 1985, FROM WILLIAM J. DIRCKS TO COMMISSIONER ZECH, THE FOLLOWING POINT IS CITED AS A "CON" IN THE PROPOSAL MADE IN NUREG-0957:

> "RAISES POSSIBLE CONSTITUTIONAL CHALLENGES IF SYSTEM IS IMPOSED ON LICENSEES CURRENTLY ENTITLED UNDER ACT TO LIMITATION OF LIABILITY."

WHAT ARE THOSE "POSSIBLE CONSTITUTIONAL CHALLENGES"?

ANSWER.

WHILE DETAILED LEGAL ANALYSIS HAS NOT BEEN PERFORMED, FOR THE REASONS NOTED IN THE PRECEDING RESPONSE, PRELIMINARY RESEARCH THAT HAS BEEN DONE BY OUR LEGAL STAFFS SUGGESTS THAT LEGISLATION ALONG THESE LINES WOULD NOT VIOLATE ANY PROHIBITION REGARDING IMPAIRMENT OF CONTRACTS, BOTH BECAUSE EXISTING INDEMNITY AGREEMENTS ARE EXPRESSLY SUBJECT TO AMENDMENT BY REASON OF CHANGES TO THE ATOMIC ENERGY ACT (SEE 10 CFR 140.92, ART. V,) AND BECAUSE THE CONSTRAINTS OF THE CONTRACT CLAUSE MAY NOT BE APPLICABLE TO REVIEW OF CONGRESSIONAL LEGISLATION IN ANY EVENT. SEE WASHINGTON STAR COMPANY V. INTERNATIONAL TYPOGRAPHICAL UNION NEGOTIATED PENSION PLAN, 729 F.2D 1502 (D.C. CIR. 1984); PEICK V.

Pension Benefit contracts, both because existing indemnity agreements are expressly subject to amendment by reason of changes to the Atomic Energy Act (*see* 10 CFR 140.92, Art. V,) and because the constraints of the contract clause may not be applicable to review of Congressional legislation in any event. *See Washington Star Company* v. *International Typographical Union Negotiated Pension Plan*, 729 F.2d 1502 (D.C. Cir. 1984); *Peick* v. *Pension Benefit Guaranty Corp.*, 724 F.2d 1247 (7th Cir. 1983). *But see Shelter Framing Corp.* v. *Pension Benefit Guaranty Corp.*, 705 F.2d 1502 (9th Cir. 1983).

The other constitutional provision that appears to be involved is the provision that prohibits a "taking" of property without just compensation. Here again, while our review is preliminary, legal research by our legal staffs suggests that changes along the lines of NUREG-0957 would be constitutionally valid, both because licensee's property rights are substantially defined by the terms of Commission licensees which are expressly subject to changes in the Atomic Energy Act, 10 CFR 50.54(h), and because changes in the Price-Anderson Act can properly be viewed as an aspect of Federal regulation rather than a "taking." *See Duke Power Co.* v. *Carolina Environmental Study Group, Inc.* 438 U.S. 59 (1978). Moreover, the altered expectations of existing licensees arising from the potential for greater liability does not appear to offend due process limits on retrospective legislation. *See Usery* v. *Turner Elkhorn Mining Co.*, 428 U.S. 1 (1976).

ULTIMATELY, ANY CONSTITUTIONAL CHALLENGE THAT MAY BE MADE WILL BE RESOLVED BY THE COURTS. NONETHELESS, ANY SUBSTANTIAL CHANGES TO THE PRICE-ANDERSON ACT THAT ARE APPLIED TO EXISTING LICENSEES RAISE QUESTIONS OF FAIRNESS AND EQUITY THAT ARE PROPERLY CONSIDERED AND RESOLVED BY THE CONGRESS, WHETHER OR NOT THESE QUESTIONS RAISE CONSTITUTIONAL ISSUES.

Question 8. In that same memorandum, it is noted that the proposal in NUREG-0957 "would provide no formal role for Congressional review of payment of claims." Is it appropriate to eliminate the Congressional review mechanism? If so, why? Are there any circumstances under which Congressional review would be necessary or appropriate? If so, how would you fashion a Congressional review mechanism and for what purposes would this option be employed?

Answer.

It should be noted that the statement in the staff's memorandum of April 12, 1985 that there would be no formal role for Congressional review is listed under the category of "Cons" with respect to the proposal in NUREG-0957. If any absolute limitation of liability is to be provided with respect to mandated layers of coverage, NRC believes that Congressional review would be both necessary and appropriate and that the proposed Presidential and Congressional review mechanisms provided in S.1225 are a major enhancement of Section 170e of the present Act.

Commissioner Asselstine adds:
There is nothing in the proposal in NUREG-0957 which would prohibit Congressional review. In fact, Congress would be free to review the payment scheme if circumstances required.

QUESTION 9. WHAT ARE THE TOTAL POTENTIAL FINANCIAL CONSEQUENCES OF A NUCLEAR REACTOR ACCIDENT (INCLUDING BOTH PERSONAL INJURY AND PROPERTY DAMAGE)? IN AN EARLIER DRAFT VERSION OF NUREG-0957, THE COMMISSION STAFF POINTED OUT THAT, IN SOME INSTANCES, PROPERTY DAMAGE FROM A NUCLEAR ACCIDENT COULD RANGE AS HIGH AS $200 BILLION. SHOULD THE CONGRESS ESTABLISH A SYSTEM, IN ADVANCE OF SUCH AN ACCIDENT, TO PROVIDE ASSURED COMPENSATION FOR ALL SUCH PUBLIC LIABILITY CLAIMS THAT MIGHT RESULT, I.E. A SYSTEM UNDER WHICH THE PUBLIC KNOWS, IN ADVANCE OF AN ACCIDENT, WHERE THE MONEY WILL COME FROM TO PAY ALL PUBLIC LIABILITY CLAIMS, AND ALSO KNOWS THAT ALL VALID PUBLIC LIABILITY CLAIMS WILL BE PAID IN FULL)? HOW WOULD PUBLIC LIABILITY CLAIMS FROM AN ACCIDENT OF THIS MAGNITUDE ($200 BILLION IN PUBLIC LIABILITY CLAIMS) BE HANDLED UNDER THE PROPOSAL IN NUREG-0957? IF A COMPREHENSIVE SYSTEM, ESTABLISHED IN ADVANCE OF AN ACCIDENT, FOR HANDLING CLAIMS IN THE RANGE OF $200 BILLION CANNOT OR NEED NOT BE ESTABLISHED, GIVEN THE VERY REMOTE PROBABILITY OF AN ACCIDENT OF THIS MAGNITUDE, WHAT FIGURE FOR PUBLIC LIABILITY CLAIMS

SHOULD THE CONGRESS USE IN ATTEMPTING TO CONSTRUCT SUCH A SYSTEM FOR THE FINANCIAL CONSEQUENCES OF AN ACCIDENT? IS THERE A POINT AT WHICH AN ACCIDENT IS SO HIGHLY IMPROBABLE THAT IT MAKES NO SENSE TO ESTABLISH A COMPENSATION SYSTEM TO RESPOND TO SUCH AN EVENT? IF SO, WHERE WOULD THE COMMISSION DRAW THE LINE AND WHAT WOULD BE THE CORRESPONDING FINANCIAL CONSEQUENCES OF AN ACCIDENT OF THAT PROBABILITY, IF IT WERE TO OCCUR?

ANSWER.

THERE IS A BROAD SPECTRUM OF POTENTIAL FINANCIAL CONSEQUENCES OF THE OFFSITE RADIOLOGICAL RELEASES FROM NUCLEAR REACTOR ACCIDENTS, RANGING FROM NONE TO VERY LARGE. SO MANY INDEPENDENT FACTORS INFLUENCE THE FINANCIAL CONSEQUENCES THAT THERE IS A DECLINING PROBABILITY WITH INCREASING CONSEQUENCES: THERE IS NO NATURAL CUTOFF THAT COULD BE CALLED A WORST CASE OR MAXIMUM CONSEQUENCE. NEVERTHELESS, ANALYSIS MADE BY THE STAFF SUGGESTS THAT CONSEQUENCES HAVING A COST ABOVE A RANGE OF A FEW TENS OF BILLIONS OF DOLLARS ARE EXTRAORDINARILY UNLIKELY.

THE COMMISSION DOES NOT BELIEVE THAT CONGRESS SHOULD ESTABLISH A SYSTEM IN ADVANCE OF SUCH AN ACCIDENT TO PROVIDE ASSURED COMPENSATION FOR $200 BILLION IN PUBLIC LIABILITY CLAIMS WITH THE

PROBABILITY OF OCCURRENCE OF TWO ACCIDENTS IN ONE BILLION REACTOR YEARS. CLEARLY THE PROPOSAL UNDER NUREG-0957 COULD NOT HANDLE $200 BILLION IN PUBLIC LIABILITY CLAIMS. BUT IT IS QUESTIONABLE AS TO WHETHER ANY SYSTEM COULD BE DEVISED, OR SHOULD BE DEVISED, TO HANDLE SUCH A LEVEL OF CLAIMS. THE LIKELIHOOD OF ACCIDENTS BEYOND THOSE IN THE RANGE OF TENS OF BILLIONS OF DOLLARS IS SO HIGHLY IMPROBABLE THAT IT WOULD BE SENSELESS TO ESTABLISH A COMPENSATION SYSTEM TO RESPOND TO SUCH ACCIDENTS. IN DEED, IT SHALL BE KEPT IN MIND THAT EVEN THE LIKELIHOOD OF ACCIDENTS BEYOND THOSE IN THE RANGE OF 100 MILLIONS OF DOLLARS ARE VERY UNLIKELY. THE INABILITY TO ASSIGN IN ADVANCE AN ULTIMATE VALUE FOR A LIMITATION OF LIABILITY CONTRIBUTED TOWARD INITIATING AN ALTERNATIVE THAT WOULD PROVIDE A LARGE SOURCE OF FUNDS TO MEET ALL VALID CLAIMS AND LED TO THE RECOMMENDATIONS IN NUREG-0957 AND AS SEEN IN S.1225. MEETING ALL VALID CLAIMS IS VIEWED AS A REASONABLE GOAL ALTHOUGH IT IS OBVIOUS FROM THIS ANSWER THAT HIGHLY IMPROBABLE ACCIDENTS CAN BE IMAGINED THAT WOULD DEFEAT THIS GOAL.

QUESTION 9.

COMMISSIONER ASSELSTINE ADDS:

I WOULD LIKE TO PROVIDE THE FOLLOWING ANALYSIS PREPARED BY THE STAFF FOR YOUR INFORMATION:

THE SPECTRUM OF FINANCIAL CONSEQUENCES IS TABULATED BELOW. IN THIS TABLE WE HAVE ASSUMED 125 REACTORS. NOTE THAT THE UNCERTAIN FACTORS IN THE CALCULATIONS USED TO GENERATE THE TABLE HAVE BEEN TREATED IN WAYS WE KNOW TODAY TO BE PREDOMINANTLY PESSIMISTIC, ALTHOUGH OUR RESEARCH HAS NOT PROGRESSED TO THE POINT THAT WE KNOW BY HOW MUCH THESE ESTIMATES EXAGGERATE THE RISK.

ACCIDENT DESCRIPTION	AGGREGATE INDUSTRY LIKELIHOOD WITHIN A TEN YEAR INTERVAL		AGGREGATE FINANCIAL CONSEQUENCES*
	BEST EST.	RANGE	
WELL-MITIGATED OR CONTAINED CORE DAMAGE AND/OR MELTDOWN	30%	12-70%	NONE TO TENS MILLIONS
PARTIALLY MITIGATED MELTDOWN	4%	1-12%	$10M-$1B
UNCONTAINED, RAPIDLY DEVELOPING CORE MELTDOWN	0.1%	.01%-1%	$100M-$10B

*SEE NEXT PAGE

* THESE CONSEQUENCES COVER OFFSITE RADIOLOGICAL LOSSES ONLY, NOT ONSITE DECONTAMINATION OR LOSS OF THE PLANT. THE PREDOMINANT CONTRIBUTOR IS PROPERTY DAMAGE. HEALTH EFFECTS INCLUDE MEDICAL COSTS PLUS LOSS OF EMPLOYMENT REVENUE DUE TO INJURY OR DEATH. THESE HEALTH EFFECTS AMOUNT TO LESS THAN 10% OF THE TOTAL. WE HAVE NOT INCLUDED PROJECTIONS OF PUNITIVE DAMAGES, PAIN AND SUFFERING AWARDS, OR OTHER POTENTIAL FEATURES OF HEALTH EFFECT LIABILITY, AS THESE CANNOT BE PREDICTED RELIABLY.

ESTIMATES OF PROPERTY DAMAGE IN EXCESS OF $10 BILLION HAVE OCCURRED IN THE COMPUTER MODELS OF THE SPECTRUM OF OFFSITE CONSEQUENCES OF THE MOST SEVERE RELEASES POSSIBLE. THEY ARISE FROM THE COINCIDENCE OF EXTRAORDINARILY SEVERE AND IMPROBABLE RELEASES AT THE MOST POPULOUS SITES TOGETHER WITH EXTREMELY ADVERSE WEATHER.

QUESTION 10. PLEASE COMMENT ON S.1225. WHAT PROVISIONS OF THIS BILL DOES THE COMMISSION SUPPORT? WHAT PROVISIONS DOES THE COMMISSION OPPOSE? DOES THE COMMISSION SUPPORT THE PROVISION IN S.1225 THAT PROVIDES THAT, IN THE EVENT THAT THE FUNDS AVAILABLE UNDER THE THREE MANDATORY LAYERS OF COVERAGE ARE EXHAUSTED, THE PRESIDENT WOULD BE REQUIRED TO SUBMIT A REPORT TO CONGRESS WITHIN 90 DAYS ON THE CAUSES AND EXTENT OF THE DAMAGE AND RECOMMENDATIONS FOR FULL COMPENSATION, AND THE CONGRESS WOULD BE REQUIRED TO ACT ON THOSE RECOMMENDATIONS? IF NOT, WHY NOT?

ANSWER.

THE STAFF'S COMMENTS ON S.1225 WERE PROVIDED TO THE SENATE COMMITTEE ON ENERGY AND THE ENVIRONMENT. THE COMMISSION SUPPORTS THE OBJECTIVES OF S.1225 AND BELIEVES THAT THE METHODS OF ACHIEVING THESE OBJECTIVES ARE WELL-CONSIDERED. NO PROVISIONS OF S.1225 ARE SPECIFICALLY OPPOSED BY THE COMMISSION ALTHOUGH QUESTIONS RELATING TO THE USE OF THE NUCLEAR WASTE FUND AND THE RELATIONSHIP OF S.1225 TO THE NUCLEAR WASTE POLICY ACT ARE

DEFERRED TO DOE. THE COMMISSION BELIEVES THAT IF ANY LIMITATION OF LIABILITY IS TO BE PROVIDED WITH RESPECT TO MANDATED LAYERS OF COVERAGE, THE PROPOSED PRESIDENTIAL AND CONGRESSIONAL REVIEW MECHANISMS PROVIDED IN S.1225 ARE A MAJOR ENHANCEMENT OF SECTION 170E OF THE PRESENT ACT.

COMMISSIONER ASSELSTINE ADDS:
THE PROPOSAL IN NUREG-0957 IS PREFERABLE TO S.1225.

QUESTION 11. PLEASE COMMENT ON S.445. WHAT PROVISIONS OF THIS BILL DOES THE COMMISSION SUPPORT? WHAT PROVISIONS DOES THE COMMISSION OPPOSE?

ANSWER.

THE COMMISSION'S COMMENTS WITH RESPECT TO S.445 ARE INCLUDED IN ITS TESTIMONY. THE COMMISSION SUPPORTS THE EXTENSION OF THE PRICE-ANDERSON ACT BUT DOES NOT SUPPORT THE TOTAL ELIMINATION OF THE LIMITATION OF LIABILITY PROVISION PROVIDED IN S.445, THE ELIMINATION OF THE CONCEPT OF EXTRAORDINARY NUCLEAR OCCURRENCE AND THE ELIMINATION OF THE STATUTE OF LIMITATION.

QUESTION 12. ON JULY 2, 1985, THE COMMISSION INFORMED THE SUBCOMMITTEE THAT THE RECOMMENDATION IN NUREG-0957 WAS INTENDED TO AUTHORIZE ONLY A $10 MILLION PER REACTOR PER YEAR ASSESSMENT ON NUCLEAR UTILITIES, AND WOULD NOT ALLOW ADDITIONAL $10 MILLION ASSESSMENTS FOR ADDITIONAL INCIDENTS. HOW WOULD PUBLIC LIAIBILITY CLAIMS FOR THOSE ADDITIONAL INCIDENTS BE HANDLED, IN THE EVENT THAT A SECOND INCIDENT OCCURRED WHILE ASSESSMENTS WERE STILL BEING COLLECTED FOR AN INITIAL INCIDENT?

ANSWER.

APPROPRIATE LANGUAGE WOULD HAVE TO BE INCLUDED IN ANY STATUTORY IMPLEMENTATION OF THE RECOMMENDATION IN NUREG-0957 TO MAKE IT CLEAR THAT IF THERE WERE A SECOND NUCLEAR INCIDENT FOR WHICH ASSESSMENTS WOULD HAVE TO BE USED THAT THE JUDGES UNDER WHOSE JURISDICTION THESE ASSESSMENTS WERE BEING MADE WOULD BE ABLE TO UTILIZE ONLY AN EQUAL SHARE OF THE MAXIMUM ASSESSMENTS, RATHER THAN EACH HAVING THE ENTIRE MAXIMUM ASSESSMENT AVAILABLE FOR PAYING CLAIMS.

QUESTION 13. ON PAGE III-2 OF NUREG-0957, THE FOLLOWING STATEMENT IS MADE:

> "THIS INFORMATION INDICATES THAT THE 20-YEAR OLD STATUTE OF LIMITATIONS FOR PUBLIC INJURY CLAIMS UNDER THE PRICE-ANDERSON ACT IS PROBABLY TOO SHORT TO PERMIT THE IDENTIFICATION OF ALL LATENT INJURIES RESULTING FROM SOME NUCLEAR ACCIDENTS."

PLEASE EXPLAIN THE BASIS FOR THIS STATEMENT.

ANSWER.

THE STATEMENT QUOTED IN THE QUESTION IS EXPLAINED IN THE PRECEDING FOUR SENTENCES ON PAGE III-2 OF NUREG-0957. THESE SENTENCES READ AS FOLLOWS: "STILL ANOTHER PROBLEM IS THE PERIOD OF TIME NEEDED BEFORE SOME LATENT INJURIES RESULTING FROM RADIATION EXPOSURE DUE TO A NUCLEAR ACCIDENT ARE IDENTIFIABLE. CANCERS RESULTING FROM EXPOSURE TO CARCINOGENIC AGENTS GENERALLY HAVE LONG LATENT PERIODS, OFTEN DECADES FOLLOWING EXPOSURE, AND RADIOGENIC CANCER IS NO EXCEPTION. THE SHORTEST MINIMAL LATENT PERIOD (THE TIME INTERVAL FOLLOWING EXPOSURE DURING WHICH THERE IS NO CLINICAL MANIFESTATION OF THE DISEASE RESULTING FROM THE EXPOSURE) FOR RADIOGENIC CANCER, ESTABLISHED THROUGH

EPIDEMIOLOGICAL STUDIES OF EXPOSED POPULATIONS, IS ABOUT 2 TO 3 YEARS FOR LEUKEMIA AND BONE CANCER. FOR OTHER CANCERS, THE MINIMAL LATENT PERIOD IS AT LEAST 10 YEARS. THE PERIOD OF INCREASED RISK FOR LEUKEMIA AND BONE CANCER APPEARS TO BE LIMITED TO 25 YEARS. FOR OTHER CANCERS, THE PRESENT EVIDENCE SUGGESTS THAT THE INCREASED RISK COULD PERSIST FOR A LIFETIME, AND CLEARLY CAN PERSIST FOR SEVERAL DECADES."

QUESTION 14. ON JULY 17, IN A BRIEFING FOR THE COMMITTEE STAFF ON PRICE-ANDERSON, MR. JEROME SALTZMAN OF THE COMMISSION ADVISED THE COMMITTEE THAT, UNDER THE APPROACH PROPOSED IN NUREG-0959, "THE PRICE-ANDERSON ACT--THE THIRD DECADE," AN ANNUAL ASSESSMENT OF $10 MILLION WOULD BE COLLECTED FROM ALL NRC REACTOR LICENSEES TO PAY PUBLIC LIABILITY CLAIMS FOLLOWING A NUCLEAR ACCIDENT. THIS ASSESSMENT WOULD CONTINUE UNTIL ALL PUBLIC LIABILITY CLAIMS HAVE BEEN SATISFIED.

UNDER THIS APPROACH, ACCORDING TO MR. SALTZMAN, THE MAXIMUM AMOUNT OF FUNDS THAT WOULD BE AVAILABLE TO PAY PUBLIC LIABILITY CLAIMS THROUGH THE SECONDARY LAYER OF RETROSPECTIVE PREMIUMS WOULD AMOUNT TO $10 MILLION TIMES EACH YEAR OF LICENSED REACTOR OPERATION REMAINING UNDER LICENSES IN EFFECT AT THE TIME OF THE ACCIDENT. THUS, MR. SALTZMAN EXPLAINED, IF THERE WERE 115 REACTORS LICENSED TO OPERATE AT THE TIME OF THE ACCIDENT, AND ALL 115 OF THOSE REACTORS HAD 40 YEARS REMAINING UNDER EACH REACTOR LICENSE, WE COULD EXPECT THE SECONDARY LAYER TO GENERATE $46 BILLION IN FUNDS TO PAY PUBLIC LIABILITY CLAIMS (40 x 115 x $10 MILLION). IF CLAIMS EXCEEDED

THIS AMOUNT, TOGETHER WITH THE PRIMARY INSURANCE LAYER, ACCORDING TO MR. SALTZMAN, CONGRESS WOULD THEN HAVE TO REVIEW THE ACCIDENT, AS UNDER EXISTING LAW, TO DETERMINE WHAT FURTHER STEPS SHOULD BE TAKEN.

SUBSEQUENT STATEMENTS ON BEHALF OF THE COMMISSION HAVE LED TO CONFUSION ON THIS LATTER POINT. IN PARTICULAR, IT IS NOT CLEAR WHETHER THE APPROACH PROPOSED IN NUREG-0957 CALLS FOR COLLECTING ANNUAL RETROSPECTIVE PREMIUMS ONLY SO LONG AS A LICENSE REMAINS IN EFFECT FOR A REACTOR, OR, ALTERNATIVELY, WOULD REQUIRE THE PAYMENT OF ANNUAL ASSESSMENTS UNTIL ALL PUBLIC LIABILITY CLAIMS HAVE BEEN SATISFIED, EVEN IF THAT MEANT COLLECTING ASSESSMENTS AFTER THE EXPIRATION OF A REACTOR LICENSE. PLEASE ADDRESS THE FOLLOWING:

(A) DID THE COMMISSION CONSIDER THIS ISSUE WHEN IT WAS FORMULATING THE RECOMMENDATIONS SET FORTH IN NUREG-0957? DID THE COMMISSIONERS DISCUSS THE RELATIVE PROS AND CONS OF THE RESPECTIVE APPROACHES DESCRIBED ABOVE? PLEASE SUPPLY THE SUBCOMMITTEE WITH ANY WRITTEN DOCUMENTS CONCERNING THIS ISSUE

PREPARED BY THE COMMISSION OR THE COMMISSION STAFF AT THE TIME THAT THE RECOMMENDATIONS IN NUREG-0957 WERE UNDER CONSIDERATION.

ANSWER.

THE COMMISSION DID NOT DISCUSS THIS ISSUE WHEN IT WAS FORMULATING THE RECOMMENDATIONS IN NUREG-0957 NOR DID IT DISCUSS RELATIVE PROS AND CONS. THERE ARE NO WRITTEN DOCUMENTS PREPARED ON THIS ISSUE.

(B) IF NUREG-0957 CONTEMPLATES ANNUAL ASSESSMENTS ONLY DURING THE TIME THAT AN OPERATING LICENSE IS IN EFFECT, PLEASE DESCRIBE THE CONGRESSIONAL REVIEW MECHANISM THAT THE COMMISSION HAS IN MIND FOR REVIEWING CLAIMS THAT EXCEED THE FUNDS THAT WOULD BE AVAILABLE UNDER THIS APPROACH.

ANSWER.

THE ANSWER TO THE QUESTION OF WHETHER ANNUAL ASSESSMENTS ARE CONTEMPLATED ONLY DURING THE TIME THAT AN OPERATING LICENSE IS IN EFFECT CAN BECOME CONFUSED IF AN IMPORTANT DISTINCTION IS NOT MADE BETWEEN OBLIGATIONS WITH RESPECT TO PUBLIC LIABILITY INCIDENTS THAT OCCUR DURING THE TIME AN OPERATING LICENSE IS IN EFFECT, AND OBLIGATIONS THAT ARISE FOR NUCLEAR INCIDENTS THAT OCCUR AFTER AN OPERATING LICENSE IS TERMINATED. IN THE BRIEFING OF JULY 17, 1985, MR. SALTZMAN RESPONDED TO QUESTIONS, HYPOTHETICALS AND ASSUMPTIONS POSED BY MR. CURTISS OF THE SUBCOMMITTEE STAFF. THE QUESTIONS WERE UNDERSTOOD TO BE IN THE CONTEXT OF AN INQUIRY BY A POWER REACTOR LICENSEE THAT IS CURRENTLY SUBJECT TO A $5 MILLION RETROSPECTIVE PREMIUM ALTHOUGH ITS OPERATING LICENSE PERMITS ONLY POSSESSION OF THE REACTOR AND ITS FUEL. THE POINT OF THIS INQUIRY IS WHETHER SUCH A LICENSEE, OR LICENSEES THAT MAY IN THE FUTURE BE IN

VARIOUS STAGES OF DECOMMISSIONING, SHOULD CONTINUE TO BE OBLIGATED TO PAY RETROSPECTIVE PREMIUMS FOR NUCLEAR INCIDENTS THAT MIGHT ARISE UNTIL THE LICENSE AND INDEMNITY AGREEMENT ARE TERMINATED. THE STAFF IS STILL CONSIDERING THIS INQUIRY WHICH IN FACT ARISES IN THE CONTEXT OF THE PRESENT STATUTE RATHER THAN CHANGES CONTEMPLATED IN THE RECOMMENDATIONS IN NUREG-0957.

THIS IS A DIFFERENT QUESTION FROM ONE AS TO WHETHER, WITH THE TERMINATION OF A POWER REACTOR LICENSE AND ASSOCIATED INDEMNITY AGREEMENT, THERE IS A CONTINUING OBLIGATION TO PAY RETROSPECTIVE PREMIUMS (PURSUANT TO THE RECOMMENDATIONS IN NUREG-0957) FOR NUCLEAR INCIDENTS THAT AROSE DURING THE LIFE OF THE LICENSE AND INDEMNITY AGREEMENT. IN THIS SITUATION, THE STAFF HAS BEEN MINDFUL OF ARTICLE VII OF THE FORM OF INDEMNITY AGREEMENT WITH LICENSEES FURNISHING INSURANCE POLICIES AS PROOF OF FINANCIAL PROTECTION (10 CFR 140.92) WHICH READS IN PART:

> "TERMINATION OF THE TERMS OF THIS AGREEMENT SHALL NOT AFFECT ANY OBLIGATION OF THE LICENSEE OR ANY OBLIGATION OF THE COMMISSION UNDER THIS AGREEMENT WITH RESPECT TO ANY NUCLEAR INCIDENT OCCURRING DURING THE TERM OF THIS AGREEMENT."

IF IN RESPONDING TO MR. CURTISS' QUESTIONS MR. SALTZMAN GAVE AN IMPRESSION DIFFERENT FROM WHAT IS STATED IN THE INDEMNITY

AGREEMENT LANGUAGE, IT WAS INCORRECT. IN VIEW OF THE OPEN-ENDED TOTAL OBLIGATION TO PAY ALL LEGITIMATE CLAIMS EVEN AFTER THE TERMINATION OF THE REACTOR LICENSES AND INDEMNITY AGREEMENTS, THERE WOULD BE NO LIMIT ON RETROSPECTIVE PREMIUMS COLLECTED (EXCEPT THE ANNUAL LIMITATION) AND THUS NO REQUIREMENT FOR FURTHER CONGRESSIONAL REVIEW.

(C) IF NUREG-0957 CONTEMPLATES ANNUAL ASSESSMENTS AFTER THE EXPIRATION OF A REACTOR LICENSE, PLEASE IDENTIFY THE PROS AND CONS CONSIDERED BY THE COMMISSIONERS WHEN THIS APPROACH WAS FORMULATED.

ANSWER.

AS STATED IN (A), ABOVE, THE COMMISSION DID NOT CONSIDER PROS AND CONS WITH RESPECT TO THIS ISSUE.

QUESTION 15. PLEASE PROVIDE THE SUBCOMMITTEE WITH DRAFT LEGISLATION CONTAINING THE RECOMMENDATIONS THAT THE COMMISSION HAS MADE IN NUREG-0957, TOGETHER WITH A SECTION-BY-SECTION ANALYSIS OF SUCH LEGISLATION.

ANSWER.

A MAJORITY OF COMMISSIONERS--INCLUDING COMMISSIONER BERNTHAL, COMMISSIONER ROBERTS AND COMMISSIONER ZECH-- BELIEVE THAT, OF THE PROPOSALS NOW BEFORE THE CONGRESS, S.1225 OFFERS THE BEST APPROACH. SINCE THE MAJORITY DOES NOT SUPPORT THE ANNUAL LIMITATION OF LIABILITY THE COMMISSION IS NOT DRAFTING LEGISLATION BASED ON THIS FEATURE IN THE PROPOSALS MADE IN NUREG-0957. THE COMMISSION HAS SUPPLEMENTED ITS TESTIMONY, AS REQUESTED BY THE SUBCOMMITTEE WITH AN ANALYSIS OF S.1761, "THE PRICE-ANDERSON IMPROVEMENT ACT OF 1985." AS INDICATED IN THIS ANALYSIS, IN GENERAL WE BELIEVE THAT S.1761 IS CONSISTENT WITH THE RECOMMENDATIONS PROPOSED IN NUREG-0957 ALTHOUGH THE BILL ALSO CONTAINS OTHER PROVISIONS NOT SPECIFICALLY ADDRESSED IN NUREG-0957.

AMENDMENT #770 - STAFF ANALYSIS

AMENDMENT 770 TO S. 1761 ALSO INTRODUCED BY SENATOR STAFFORD WOULD PERMIT THE RECOVERY, UNDER APPLICABLE STATE LAW, OF DEFERRED PREMIUMS FROM ANY PERSON WHO MAY BE LIABLE. THIS PROVISION WOULD NOT AFFECT THE GOAL OF FULL RECOVERY BY INJURED MEMBERS OF THE GENERAL PUBLIC FOR THEIR LEGITIMATE CLAIMS AND THEREFORE THE PRINCIPAL PROPOSAL IN NUREG-0957 REMAINS UNAFFECTED. THE THRUST OF AMENDMENT 770 APPEARS TO BE AN ATTEMPT TO ADJUST THE BALANCE IN THE PAYMENTS MADE BETWEEN PERSONS WHO PAY RETROSPECTIVE PREMIUMS AND PERSONS WHO ARE LIABLE.

AN IMPORTANT FEATURE OF THE PRICE-ANDERSON ACT HAS ALWAYS BEEN THE "OMNIBUS COVERAGE" WHERE THE SYSTEM PROVIDES FOR THE LIABILITY NOT ONLY FOR THE UTILITIES NAMED IN THE INDEMNITY AGREEMENTS AND INSURANCE POLICIES BUT ALSO FOR ALL PERSONS WHO MAY BE LIABLE FOR THE NUCLEAR INCIDENT. AMENDMENT 770 WOULD NOT CHANGE THE PROTECTION OF PRICE-ANDERSON'S OMNIBUS COVERAGE FROM THE VIEWPOINT OF MEMBERS OF THE GENERAL PUBLIC. THUS, REGARDLESS OF WHO MAY BE LIABLE AND THE SIZE OF THE ASSETS OF THE PERSONS LIABLE, MEMBERS OF THE PUBLIC WOULD GET RECOVERY FOR THEIR CLAIMS UNDER THE PROTECTION OF PRICE-ANDERSON.

HOWEVER, THE OMNIBUS PROTECTION FROM THE POINT OF VIEW OF PERSONS WHO MAY BE LIABLE WOULD BE SIGNIFICANTLY MODIFIED BY AMENDMENT 770. WHILE THESE PERSONS' LIABILITY TO MEMBERS OF THE GENERAL PUBLIC WOULD CONTINUE TO BE COVERED BY PRICE-ANDERSON THEY WOULD HAVE NEW EXPOSURE TO PERSONS PAYING DEFERRED PREMIUMS ON THEIR BEHALF AND THIS EXPOSURE WOULD NOT BE PROTECTED BY PRICE-ANDERSON. THE COMMISSION HAS NO SPECIAL EXPERTISE NOR--INASMUCH AS PUBLIC PROTECTION WOULD REMAIN UNAFFECTED--PROGRAMMATIC CONCERN WITH THIS ATTEMPT TO ADDRESS THE QUESTION OF EQUITY BETWEEN PARTIES PAYING RETROSPECTIVE PREMIUMS AND PERSONS LIABLE. IT WOULD POINT OUT, HOWEVER, THAT AMENDMENT 770 COULD REINTRODUCE THE POSSIBILITY OF POTENTIALLY CATASTROPHIC LOSSES ON A UTILITY, A SUPPLIER, A GOVERNMENTAL ENTITY OR ANY OTHER PARTY WHO MAY BE LIABLE. THE PROTECTION AGAINST CATASTROPHIC LIABILITY LOSSES HAS BEEN HERETOFORE ONE OF THE BASIC OBJECTIVES OF THE PRICE-ANDERSON ACT.

STATEMENT OF

FREDERICK M. BERNTHAL, COMMISSIONER

U.S. NUCLEAR REGULATORY COMMISSION

CONCERNING PROPOSALS TO AMEND

THE PRICE-ANDERSON ACT

October 23, 1985

Mr. Chairman, there is little doubt that adoption of the Commission's original Price-Anderson recommendations would eventually provide sufficient funds to pay all claims that might arise from a nuclear accident. And while I may still consider the basic principle of that proposal sound, I have come to be convinced that it is predicated on an unrealistic world.

I recognize the concern that the proposal introduces the perception (if not the practical effect) of "unlimited liability" in the payment of claims. And there is the legitimate question of whether such payments would in fact be timely.

Finally, and perhaps most significantly, in the wake of recent events in the chemical industry and elsewhere, I have developed a profound and decisive skepticism over the wisdom of dangling an annually renewable $1 billion before the noses of some of this country's attorneys at tort law. I can envision the creation thereby of a whole new industry and special interest group -- legions of lawyers, sustained forever by an anually renewable $1 billion Price-Anderson stipend.

So while I supported the original Commission recommendation that was formulated before the beginning of my tenure, my views on this subject have departed from the Commission's 1983 position in one major respect, and with good reason. There is no doubt that an increase in the current retrospective premium of $5 million per incident should be increased to an amount two, three, or even four times as large. But for the reasons I have outlined, I now believe that provision should apply for a limited period of time after an accident.

There do indeed appear to be other (and better) solutions to the Price-Anderson problem, solutions which can both protect the public adequately and treat the industry fairly. While I continue to believe that many of the Commission's 1983 recommendations are sound, I have concluded that any new legislation should be crafted to achieve two primary objectives:

First, I would recommend that the pool of money available to pay compensatory damage claims be larger than suggested by some -- perhaps as large as $5 billion. Such a fund would assure that victims of an accident could receive compensation equal to or greater than that which would exist if there were so-called "unlimited" liability. The "free-market" version of such unlimited liability would in reality be limited with resounding and painful finality by the net worth of the entity responsible for an accident, were normal tort principles to govern recovery. (In few if any cases does the practical, net liquid worth of a nuclear utility exceed $5 billion).

On the other hand, if the much talked over but seldom committed principle of a truly unlimited liability, unique to the nuclear power industry (as opposed to the assets-limited "unlimited liability" of a free market), were now to be mandated by Act of Congress, then similar measures should be applied to other industries that may also have the potential for accidents with claims far exceeding their net liquid assets and insurance funds.

[Indeed, 1985 may be remembered as the year in which the chemical accident achieved the dubious distinction of becoming the new benchmark of industrial catastrophe. A major nuclear accident almost certainly would not have the life-threatening consequences of a Bhopal; its primary impact is likely to be economic -- with the potential for very large economic losses. And this, of course, is what Price-Anderson is designed to deal with.]

Viewed in this context, it seems unarguable that an injured public would be far better off with than without Price-Anderson.

Second, I believe that the goal of any legislation should be collection of the retrospective premiums in a timely manner. A one-time assessment may well be too large for many utilities to handle. However, if our staff is correct in its judgment that utilities would be able to handle up to $20 million per year, a fund as large as $5 billion could likely be amassed within three years after an accident, and certainly within five years. Such a plan should:

(1) provide for reasonably swift compensation for the public -- equitable compensation at least as rapid as that under the 1983 NRC proposal;

(2) be protective of the voluntary, retrospective premium structure for indemnification of the utilities involved, without jeopardizing their financial viability;

(3) eliminate the concern that an indefinite term for such retrospective premiums, as suggested by the NRC in 1983, represents an unjust and unreasonable burden on all utilities obligated to pay for the mistakes of one;

(4) dispense with the objection that such an indefinite term carries with it the perception (if not the practical reality) of "unlimited liability"; and importantly,

(5) effectively restrict the magnitude, if not the source, of fees payable to counsel for the injured, thereby limiting the time practitioners of tort law would otherwise have to ply their trade in the event of a serious nuclear accident .

The last is a plain attempt to nip in the bud a germinating problem that, unchecked, could grow to destroy the concept of streamlined administrative compensation systems such as Price-Anderson. As I have indicated, it lies at the heart of my most recent thoughts on this subject.

In its 1983 report to Congress, the Commission recommended that Congress clarify the Price-Anderson statute to exclude the payment of costs of investigation, settlement, and defense of claims from the two levels of financial protection established in the Act. I strongly concur in that recommendation. Insurance company lawyers, whose job is to limit the recovery of damage claims, should not be paid from the same fund established to compensate the injured. That is an egregious flaw in the current legislation.

Indeed, in the past few years the application of tort law to large accidents of major public consequence has exhibited a disturbing evolution that is compelling, even to the most casual observer. It would be a mockery of the term "full compensation" if fully one third of the damages awarded from Price-Anderson funds were to wind up in the coffers of lawyers representing those victims. Under the Commission's 1983 proposal, the legal profession would continue to reap these now almost customary large monetary benefits from funds intended to compensate the victims of a disaster.

In modifying Price-Anderson, Congress should therefore consider mandating a system to provide the maximum possible expeditious compensation to victims of a nuclear accident -- compensation unencumbered either by the failings of a deteriorating tort-law system, or by the inclinations of some practitioners of tort law.

Finally, I recognize and strongly endorse the practical reality and probable necessity of ultimate Congressional involvement in the event of any accident of truly catastrophic proportions, including a nuclear accident that might exhaust all initial coverages available even under an amended Price-Anderson.

Having said all this, I must also say the industry does itself no good by sometimes giving the appearance of wanting to have its cake and eat it too in this matter. Arguing for strictly limited liability under Price-Anderson on the one hand, and for a large reduction in source term on the other is an illogic not likely to escape the man on the street.

If it is true that an accident at a nuclear plant would be no more serious than that at many other large industrial facilities, then the industry cannot afford to be perceived as resistant to normalizing adjustments in the Price Anderson premium level, and payment of all legitimate claims in an accident.

Some have long argued that the nuclear enterprise couldn't survive without the subsidy they saw implicit in the oft-maligned Price-Anderson legislation. But time has shown that no funds were ever paid by the federal government in connection with its Price-Anderson liability, and in fact the government's share of that liability has steadily diminished to zero as new powerplants have come on line in recent years.

In fact, events of the past few years, and the major and real problems facing the chemical industry and the EPA lead to the ironic conclusion that, instead of being an embarrassing step-child of the nuclear enterprise, Price-Anderson may become a model for rapid, assured compensation of the public in the case of catastrophic accidents -- chemical, nuclear, or whatever.

The message being learned is that there is no such thing as unlimited liability for any industry, just as there is no such thing as unlimited compensation in real life. I believe time is proving Price Anderson to be enlightened, landmark legislation to protect the public from years of litigation, rather than to protect the industry from a bankruptcy that would still not compensate an injured public.

In connection with the Commission's consideration of this issue, I have also urged a major modification of the Commission's regulations defining "extraordinary nuclear occurrence". Even Three Mile Island fell far short of qualifying as an "ENO" but it did expose a number of fundamental flaws in the current definition of the term.

Quite simply, in my judgment an extraordinary nuclear occurrence should be determined instrumentally, by offsite surface contamination dose rate, or by dose integration, during the first 24 hours following a release -- a simple, inexpensive, and definitive solution to what is now a very complicated problem. The Commission's current defining regulation is a lawyer's dream and a plaintiff's (and licensee's) nightmare.

Finally, I cannot leave the subject of compensation without commenting briefly on the Silkwood case reviewed not long ago by the Supreme Court. In a 5-to-4 decision, the Court held that a state may award punitive damages against an entity regulated by the NRC for actions a jury finds negligent -- even though all NRC regulations may have been complied with.

In other words, every jury in America can now theoretically serve as its own Nuclear Regulatory Commission. Or, as the original judge in the Silkwood case so memorably charged his jury, "Your duty is to determine what constitutes the exercise of reasonable care in handling plutonium."

Finally, in my judgment, Congress never intended the Atomic Energy Act to deny an injured person the opportunity to recover punitive damages in cases where NRC standards have been violated. But Congress should make clear that punitive damages are not to be paid with Price-Anderson insurance funds. If a licensee can insure against punitive damages, such damages lose all deterrent value as punishment.

Preserving this important principle may require, however, that Congress wade into the noxious swamp of state tort law. As a minimum, Congress should seriously consider reaffirming in the Atomic Energy Act the principle missed by the Supreme Court in Silkwood, that a licensee fully in compliance with NRC regulations is not liable for punitive damages -- a principle made shambles by the Court's erroneous acceptance in Silkwood of that lower court judge's instruction to the jury to serve, in effect, as a local NRC.

TESTIMONY OF
WILLIAM S. LEE
CHAIRMAN OF THE BOARD AND
CHIEF EXECUTIVE OFFICER
DUKE POWER COMPANY
ON BEHALF OF
AMERICAN NUCLEAR ENERGY COUNCIL
AND
EDISON ELECTRIC INSTITUTE
ON
THE PRICE-ANDERSON ACT
BEFORE THE
SUBCOMMITTEE ON NUCLEAR REGULATION
OF THE
COMMITTEE ON ENVIRONMENT AND PUBLIC WORKS
UNITED STATES SENATE

October 23, 1985

I am William S. Lee, Chairman of the Board of Directors and Chief Executive Officer of Duke Power Company. My statement is on behalf of the American Nuclear Energy Council ("ANEC") and the Edison Electric Institute ("EEI").[1] ANEC represents more than 100 organizations having an interest in nuclear power, including privately, publicly, and cooperatively-owned utilities, manufacturers, architect-engineers, and various other firms involved in the nuclear electric power industry and its

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1/ It is my understanding that the Atomic Industrial Forum, the American Public Power Association and the National Rural Electric Cooperative Association will be communicating separately with the Committee in support of renewal.

supporting fuel cycle. EEI is the association of investor-owned electric utility companies and its members generate about 76% of the electricity in the United States.

Members of ANEC and EEI have made substantial commitments to the use of nuclear energy in the generation of electricity. Duke Power Company is currently operating six nuclear units and plans on bringing a seventh unit on line in 1986.

Background

Over 30 years ago, the Congress took the major step of industrializing nuclear technology under governmental regulation. One of the principal aims of the Atomic Energy Act of 1954 was to involve the private sector in the utilization of nuclear energy for the generation of electric power. Over the next few years, the industry hesitated to make major investments in prototype nuclear power plants because of uncertain economics, under which an important subheading was uncertainty regarding potential liability. The industry desired a system under which there was liability coverage coextensive with liability exposure.

Professor Arthur Murphy's landmark study of nuclear liability and insurance questions led to the consideration by Congress of various proposals in 1956 and ultimately to the enactment of the Price-Anderson amendments to the Atomic Energy Act in 1957. While Congress accepted many of Professor Murphy's recommendations, the Congress did not accept the recommendation to assure both full compensation and full coverage by unlimited indemnity.

Instead, Congress limited the government's before-the-fact indemnity obligation to $500 million dollars, while indicating that it would subsequently provide, directly to claimants, such additional funding as might be warranted. It met the industry's need for coverage coextensive with exposure by limiting liability to the sum of insurance and indemnity. Price-Anderson thus had two main objectives. The first was to assure that there would be a large pool of funds to provide prompt and orderly compensation to members of the public in the event damages were incurred from a nuclear incident no matter who might be liable. The second was to induce private investment so that the private development of nuclear power would take place.

Major amendments to Price-Anderson have been enacted on two occasions. First, in 1966, legislation was enacted, with the cooperation and support of the nuclear industry, to remove unnecessary substantive or procedural hurdles to the speedy satisfaction of legitimate claims through the waiver of certain issues and defenses. These waivers apply in the event of a substantial release with significant offsite consequences (termed an "extraordinary nuclear occurrence"), and include a waiver of short statutes of limitations, of intervening causation, of governmental immunity, and the need to show negligence on the part of the defendant. The second major amendments to Price-Anderson were enacted, again with the cooperation and support of the industry, in 1975. The amendments provided for the replacement of the fixed limitation of liability with one that would automatically increase to equal the sum of the proceeds of prepaid nuclear liability insurance and of a new layer of retrospective premium coverage to replace and eventually exceed government indemnity under the prior law.

Retrospective premium insurance in effect permits assessments of up to $5 million per nuclear incident on each power reactor licensed to operate throughout the industry. The 1975 amendments also provided more clearly in subsections 170 e and 170 o what had always been intended but previously stated only in the legislative history: if claims exceeded the limitation on liability, the NRC would prepare a report for Congress on what it would take to provide full compensation, and Congress would do what was necessary. It is worth emphasizing that the industry accepted amendments that imposed on it unprecedented obligations to act as insurers in a reasonable amount for their fellow licensees, irrespective of their own safety record. Because those obligations were fixed and manageable, it was possible for us to accept them.

An Increase Is Acceptable, But A Definite Limit Must Be Retained

I am pleased to report that we come before you once again in a spirit of willingness to accept even greater responsibilities within the realm of what is fair and just and economically efficient. It is our recommendation that the Congress retain the structure of the Price-Anderson system because it is sound public policy. We know that there has been controversy regarding the amount, or more precisely, the pace of increases in the limitation on liability. Although many arguments have been advanced both pro and con, it is true that the limit has not increased as rapidly as expected in 1975 when the previous $560 million limit was replaced by the floating limit. That is because many projects have been cancelled or postponed, and licensing and construction schedules have in many cases slipped. Under the present law, $640 million is available to pay claims.[2] In order to be responsive to what we understand to be the sense of Congress, we are willing to support an increase in the limit. Establishment of the range within which NRC may set retrospective premiums at twice or even three times the present maximum, as proposed in S.1225, would be acceptable.

We do not mean to suggest that either the estimated probability or the estimated consequences of accidents has increased since the last amendments. Results of source term research to date (and I recognize that confirmatory studies and

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2/ The $640 million is composed of $160 million in primary (prepaid) nuclear liability insurance and $480 million in retrospective assessments (up to $5 million per incident per licensed reactor, 96 being licensed as of October 1, 1985).

peer reviews are continuing) indicate that consequences are substantially less than had previously been thought. But we in the industry are willing to demonstrate our confidence in each other by assuming this unprecedented obligation.

We cannot accept a limitation only as to annual retrospective assessments as proposed by a minority of the NRC and in S.1761. A definite limitation on liability must be retained because a quantifiable limit is the keystone to the entire Price-Anderson structure. Without it, excessive costs to the entire industry and consumers would result. There is no basis to make the entire industry insurers without limit and without compensation for one of its members or a completely independent third party who would be insured under the omnibus provisions.

Mr. Chairman, the limitation on liability seems to be a source of much confusion. The confusion centers around the argument that limitation on liability removes safety incentives and industry accountability. The Price-Anderson system, as distinct from the rest of the Atomic Energy Act, was never intended to be a means for punishing those who violate regulatory requirements or other duties. The Price-Anderson system is intended to deliver compensation for legitimate claims in the unlikely event of a nuclear accident having substantial off-site consequences. It uses state tort law merely as a vehicle to deliver that compensation. As for those who violate their duty to the public health and safety, the Congress has already provided a system of civil and criminal enforcement in the Atomic Energy Act, as well as a comprehensive licensing and regulatory scheme. These are the governmental tools for safety incentives and accountability. Above and beyond governmental measures, of course, there are ample economic, personal and professional incentives to assure safety on an individual, corporate and industry-wide basis including self-policing activities such as those of the Institute for Nuclear Power Operations. Duke Power's General Counsel, Steve Griffith, in his testimony before the Subcommittee on Energy Research and Development of the Senate Commitee on Energy and Natural Resources, on behalf of AIF, ANEC and EEI this past June and in his response to written questions posed by Senator Domenici, addressed the matters of safety incentives and accountability in greater detail, and I would respectfully refer you to those materials.[3]

The licensee coverage has worked well in the case of the Three Mile Island, Unit 2 accident, the only instance in which it has been called upon in any substantial way. The emergency assistance payment feature of the 1966 amendments to Price-Anderson, implemented in the nuclear liability insurance policies, worked as intended; lodging and transportation expenses

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3/ Copies of Mr. Griffith's statement and responses to written questions are attached for convenient reference.

for those who acted on the Governor's advisory to pregnant women and families with small children were promptly disbursed. Payments for lost wages were also issued promptly.

In short, Price-Anderson, as it now stands, seems to achieve the goals that Congress has for it and its basic structure ought not to be changed. We have not seen any evidence of deficiencies that would require the wholesale restructuring that would be brought about by some of the recommendations and bills I have already noted or will discuss shortly. Rather, we prefer amendments that will preserve the present structure, increase the pool of funds to pay claims, and make only those changes that are needed and that will not compromise the efficacy of present law in providing a high degree of assurance of compensation at the lowest cost.

S.1225

That brings me to S.1225, which was introduced in the Senate on May 24, 1985 by Senators Dole, Simpson and McClure. The investor-owned nuclear electric utilities have come to believe that the Dole-Simpson-McClure bill (S.1225) is by far the best vehicle for Congressional consideration of renewal and improvement of the Price-Anderson law. While the utilities cannot support every feature of the bill, S.1225 has the great virtues of (a) recognizing the real need to retain a definite, reasonable limitation on liability and (b) "putting teeth into" the present Congressional commitment (which has been recognized by the Supreme Court) that legitimate claims will not go uncompensated in the unlikely event of a nuclear accident causing damages in excess of a reasonable limit on liability.

S.1225 would make five significant changes in existing law as it affects power reactor licensees. I have summarized below each of those changes, the position of the investor-owned nuclear utilities, and, where appropriate, added a brief explanation or comment.

INCREASED ASSESSMENTS

Change in existing law. Potential assessments per reactor for any one nuclear incident would be set at a minimum of $10 million and a maximum of $15 million, with the exact amount to be established via NRC rulemaking.

Industry Position. ANEC and EEI, on behalf of their members, can accept the concept of assessments of $10 to $15 million. We would suggest, however, that it be made clear that the NRC is expected to set assessments by class of reactor and class of licensees within that range, taking into account both reactor size and total retrospective premium against any one licensee.

Comment. The nuclear utilities initially had reservations about the size of the second layer (up to

$15 million per licensed reactor). However, the leadership in both houses of Congress have indicated that a substantial increase over the present $5 million per reactor commitment is necessary to demonstrate the industry's confidence in the safety of its plants and the capabilties of its operators. S.1225 retains the cornerstones of Price-Anderson: a large pool of funds, coverage of anyone who may be liable, a definite limitation on liability, and the economic channeling that results from the last two. As I have explained earlier, channeling achieves a true efficiency, maximizes insurance for any accident, and thus avoids the fragmentation of insurance. It assures substantial funds to pay claims no matter who is liable at the lowest cost to consumers.

THIRD LAYER OF $500 MILLION

Change in existing law. A third layer of financial protection, in the amount of $500 million in excess to the two layers in the present law, would be established. This amount would be funded by a fee of up to 1.0 mill per kilowatt hour on electricity generated and sold by licensed power reactors.

Industry Position. ANEC and EEI still cannot support the third, $500 million layer of S.1225.

Comment. While it is certainly preferable to other proposals for indefinite assessments, the added burden of the third layer on the ratepayers of unrelated companies is unwarranted as the second layer provides ample funding. Also, the funding mechanism chosen may tend to penalize efficiency and full utilization of nuclear capacity.

EXPEDITED PROCEDURES

Change in existing law. The bill would provide for a Presidential assessment and recommendations as to means for providing full compensation if an accident may exceed all levels of financial protection. The bill would further provide for expedited Congressional review of such Presidential recommendation.

Industry Position. ANEC and EEI support these improvements in existing law.

WASTE PROGRAM COVERAGE

Change in Existing Law. The bill would clarify Price-Anderson coverage of the high level waste program. It would provide for distinctions between defense related radioactive waste and spent fuel or high level waste arising out of commercial programs. Liability for accidents arising out of or resulting from the transportation, storage or disposal of commercial waste would be charged to the Nuclear Waste Fund. Hence, the mill per kilowatt hour fee under the Nuclear Waste Policy Act could be increased to reimburse the fund for liability claims paid up to the limit for contractors, which would equal the highest level reached by the commercial limit. This is in contrast to the Stafford bill which would charge unlimited liability to the Waste Fund.

Industry Position. ANEC and EEI support the objective of clarifying Price-Anderson coverage for federal high level waste program activities, and believes the bill is well-drafted to accomplish that objective, but oppose charging the government's liability costs to the Nuclear Waste Fund.

Comment. S.1225 does a good job of making clear that government or contractor high level waste repository program activities or related transportation would be fully covered, subject to the waivers of defenses, and subject to the highest liability limit for power reactors. However, we find the proposed charge to the Nuclear Waste Fund to be objectionable. We do not believe it was ever intended, and do not think it appropriate now, to put licensees and their customers in the position of insuring the government for its own actions or those of its contractors, when licensees have no means of controlling or supervising those activities.

TWENTY-FIVE YEAR EXTENSION

Change in existing law. The bill would extend NRC's authority until August 1, 2012 to impose financial protection requirements and enter into indemnity agreements with holders of construction permits issued by that date.

Industry Position. We endorse the concept of a twenty-five year extension for new construction permits.

Comment. This change will allow long-range planning of new applications that might be made in the mid-1990's, but not be assured of receiving construction permits by August 1, 1997.

In sum, the bill would continue to assure a large pool of funds to pay claims almost immediately, and would also assure full compensation.

S.445

In contrast, Senator Hart's bill (S.445) would destroy the balance struck in all previous efforts to refine and develop Price-Anderson by repealing limitation on liability and extending the waivers of defenses to any claim for personal injury or property damage irrespective of whether there was any offsite release of radiation at all above normal operating levels. The bill would provide no assurance of full compensation, because the available assets of those held liable under state tort law might will be much less than popularly imagined, and would be subject to senior claims in the event of the bankruptcies that would almost inevitably result. Steve Griffith described these and other problems we see with Senator Hart's bill in his testimony this past June, so I will not repeat our comments in detail here.[4]

NRC'S 1983 Proposal and S.1761

Moving on to the report which the NRC issued in 1983 in response to Section 170 p of the Act, we must oppose most of its suggestions. The NRC's task in that report was to identify for Congressional consideration potential modifications to Price-Anderson. The principal modification identified in the report (and the one I will focus on today since Steve Griffith covered the more detailed points in June[5]) was abandonment of a per-incident limitation on liability in favor of unlimited liability payable in annual installments of $10 million per reactor.

4/ Testimony, note 3 above, pp. 19-21.

5/ Testimony, note 3 above, pp. 21-28.

A majority of the Commission no longer supports that particular recommendation because they now recognize the need for a definite limit.

The Stafford bill essentially converts into legislative form that 1983 NRC proposal which no longer bears the endorsement of the majority of the Commission. Specifically, the bill would repeal the per-incident limitation on liability of $5 million per reactor provided in current law, thus leaving liability unlimited but purportedly covered by retrospective premium insurance payable by all power reactor licensees in annual installments of initially $10 -- but up to $15 -- million for each of their licensed reactors (in excess of whatever nuclear liability insurance -- presently $160 million -- might remain available). The annual assessments would continue until all claims were satisfied.

We must oppose the basic approach of the Stafford bill for the following reasons:

1. The bill would defy the first rule of crisis management: flexible response geared to the precise situation. Under the bill, all claims at the time of an accident would become vested property rights and would have to be handled by the courts using the existing tort law system with all of its inefficiencies, transaction costs,

and potential inequities. This approach would bypass any Congressional opportunity to set priorities and substitute an administrative claims system to meet the needs of the situation in what could be a national disaster calling for flexible responses.

2. The bill would add unnecessarily to the cost of electricity. Representatives of the financial industry have indicated that investors would want a risk premium on financing nuclear utility securities if all nuclear utilities were exposed to unlimited financial risk in case of a significant accident at any other company's plant. If no accident exceeding available resources ever occurs, but a risk premium has been exacted because of the absence of an effective limitation on liability, then there is no way to obtain a refund of that "premium" and pass it on to utility customers. The perceived cost of unlimited liability will have given rise to an unnecessary but very substantial cost.

3. The bill would be unfair to nuclear utilities, their ratepayers, and investors. While it is true that the function of insurance is to spread the risk, this approach cannot be considered insurance in the traditional sense. No insurer writes a liability policy without a limit. No company desiring insurance would enter into an assessable mutual insurance arrangement without some effective limit on

its exposure at a reasonable level. No public service commission can view with equanimity continuing assessments being passed on to ratepayers for someone else's accident. And if such costs are eventually borne by stockholders, it should be remembered that no investor purchased securities with knowledge of such an *ex post facto* risk, but to the contrary, were assured by federal law of a manageable exposure to reasonable insurance costs, including retrospective assessments. This proposal would require licensees to assume unlimited liability not only for all other licensees but also for vendors, architect/engineers, other suppliers, and unrelated third parties. Imposing unlimited liability on an entire industry by statute would be a departure from the fundamental traditions of our legal system. So-called "enterprise" liability for certain drugs and other products is not a precedent because such liability is a proxy for proof of causation by a particular defendant. That is, each manufacturer who marketed the product *could have caused* the harm, though the claimant might not be able to prove which one did so. No rational court could be expected to impose common law liability on an unrelated party who had (and could have had) no causal connection to an accident.

4. The bill would leave in doubt the economic channeling achieved by the present law. Accordingly, it would be unfair to those whose pricing did not reflect a third-party liability exposure, and who entered the market relying on the calculated inducement provided by Congress that insurance coverage would remain coextensive with potential liability under the law which was to continue for the life of the licensed power plant. The bill might have the unintended effect of decreasing the amount of primary insurance funds available. Under the current Act, claimants can sue third parties, like reactor vendors, but this is not a concern because of the omnibus insurance and because of the limitation of liability and stay of execution of judgment provisions in the Act. Though the bill would amend subsection 170.e in a manner that seems intended to protect licensees and perhaps other persons liable from premature payments, it would not offer the unequivocal protection of a limitation on liability and provisions to prevent execution of judgments to third parties like suppliers, architect engineers and constructors who might nonetheless be held legally liable for judgments in excess of current collections of retrospective premiums. Moreover, the proposal in Senator Stafford's Amendment 770 to S.1761, which I will discuss later, an amendment to provide for

rights of recourse by those who have paid retrospective premiums against those responsible under state law, would fundamentally alter the economic foundation of numerous multi-billion dollar transactions and introduce risks after the fact that would virtually assure fragmentation of insurance.

In contrast, the present Price-Anderson law achieves a true economic efficiency by avoiding redundant insurance premiums payable by the many suppliers and other participants in the process of constructing and operating a nuclear plant. As presently in force, it does this by effectively channeling the financial burden of liability to the licensee operating the nuclear power reactor (through the definition of anyone liable as a person indemnified and limiting the aggregate liability of all such persons) and providing for significant, but limited and manageable assessments against other licensees. Channeling maximizes public protection for any accident, no matter who is liable, while the waiver of defenses requirement minimizes obstacles to recovery for claims. In doing away with provisions for a limit on liability and stays of execution of judgments exceeding the limit, S.1761 may not effectively preclude recovery in excess of available insurance, and would invite plaintiff's attorneys to find ingenious ways to circumvent its provisions that seek to control payments by any person liable to those within current funding of financial protection obligations. Beyond this, by removing coverage of and a limit of liability applicable to punitive damages, it would effectively destroy channeling.

Given this uncertainty regarding a potential new exposure to liability, which would be particularly acute in view both of the exclusion of punitive damages and the provision for subrogation claims under Senator Stafford's Amendment 770 to the bill, there might well be a demand from some of the largest customers of the insurance industry for separate coverage. Meeting this demand would fractionate the existing capacity among a number of different insureds, not all of whom would be involved in any given nuclear incident. In this way, the entire capacity would not normally be available for a given nuclear incident; only a fraction of the total would be, substantially less than is now available in most cases.

5. The impact upon nuclear utilities of a $10 million assessment per reactor per year over an extended period of time would be significant. This assessment is a large amount of money on an annual basis -- equal to many line item expenditures in a utility's budget, particularly for a smaller utility or one with several nuclear units. Over a

period of years, the impact on an individual utility of annual assessments at this level could be significant depending on its then current construction program (when it could be a net borrower), the size of the utility, the number of nuclear units on its system and the relationship of these units to the size of the system. It is understood that continuing retrospective payments for public and consumer-owned utilities would be particularly troublesome.

6. All of the alleged benefits of S.1761 are provided to victims under the current Price-Anderson system. There is prompt payment of funds; there is a requirement for a report on what would be required to provide full compensation which certainly Congress could not ignore; and there is the related pledge from the Congress to review thoroughly particular accidents and take whatever action is necessary and appropriate to protect the public from the consequences of a catastrophic accident. This assurance would be further strengthened if S.1225 were enacted. S.1225 provides procedural mechanisms for expeditious action, as I have already discussed. Furthermore, a system which allows the Congress to make these judgments at a time when the consequences of the accident and the financial state of the utilty industry and others are better known is preferable to prejudging how to handle what might be a

national disaster before all the facts and circumstances are known. Congress has never opted to give up the flexibility to deal with a situation in light of the unique circumstances of each such event, be it a flood or a hurricane or an unprecedented nuclear accident. Thus, Congress has never attempted to develop a detailed plan to deal with a major disaster and there is no compelling reason to do so given the low probability and broad range of consequences of a very large nuclear accident.

7. S.1761 would also extend the waiver of statutes of limitations from those shorter than 20 years (as provided in present law) to those shorter than 30 years. In brief, the industry's objections to this proposal are two-fold. First, the proposal as drafted extends the limitations period for any type of personal injury or property damage, whereas the only reason that has been given to change the present law is the possible long latency period associated with some few potentially radiogenic cancers. The amendment is thus overbroad. Second, industry will be unable to obtain insurance to cover the additional ten-year exposure to claims. Coverage is important both for claims that are made during the policy period and those made following termination. The nuclear insurers have unequivocally stated that their foreign reinsurers will not participate in

a system that extends the post-termination discovery period or under which the effective statute of limitations is extended any further than it already has been by prior amendments to Price-Anderson.

8. As noted earlier, S.1761 would exclude punitive damages from the definition of "public liability" presently contained in the Act. The nuclear industry cannot accept such a change. Defense of claims that include punitive damages would to that extent not be included in nuclear insurance policy coverage, thus complicating defense and potential settlement, and increasing both transaction costs and the number of cases that would be litigated by requiring separate defense of punitive claims. There would be no limit, annual or otherwise, on such claims. Such claims are increasingly common, even if many are ultimately denied. Though the original theory of punitive damages was to punish and make an example of egregious misconduct, such damages are sometimes awarded in the absence of any compelling proof of wrongdoing, in some cases as a way to provide an element of damages not otherwise recognized by the law of the particular state. The industry would support explicit preemption legislation to preclude punitive damage claims or awards arising out of activities regulated by the Nuclear Regulatory Commission (*i.e.*, activities for which punishment

is already provided by federal law such as civil penalties). We agree with NRC Commissioner Bernthal that it is anomalous to have decisions regarding such complex technical subject matter left to a jury of laymen free to ignore compliance with NRC regulations. But the bill does not preempt state regulations in the form of punitive damages, it merely deprives defendants of insurance coverage and the limit on liability they now have. Without preclusion of punitive damages, insurance coverage and a limit that applies to them are still needed.

9. Senator Stafford's amendment 770 to S.1761 is evidently intended to permit rights of recourse by those who have paid retrospective premiums against those responsible for an accident under state tort law. While such a provision might be superficially appealing, it would destroy the economic premises upon which hundreds of billions of dollars of private capital have been invested on the basis that third party liability costs need not be factored into pricing. Senator Stafford has suggested that Amendment 770 is generally similar in approach to existing Superfund legislation, in that industry initially funds cleanup efforts, but has rights to recover against those responsible. I am told that that proposition is far from clear under Superfund. Moreover, the present Superfund law

deals with cleanup, not liability for individual claims. and generally involves a situation where some measure of causation or responsibility can be presumed on the part of those paying into the Fund. Finally, Congress maintains an active role in Superfund, whereas S.1761 would take Congress out of the picture entirely.

10. S.1761 would provide for no limitation on liability arising out of the activities of the Secretary of Energy or DOE contractors in connection with the waste program. This unlimited liability would be charged to the Nuclear Waste Fund, and thus to utilities' payments into that fund. In other words, the utilities would be subject to unlimited liability for the government's waste activities. This is a wholly unreasonable scheme, in that it would hold the utilities responsible for activities over which they have no control.

To summarize, a "per incident" limitation on retrospective premiums should be retained. S.1225 does this. S.1761 does not. Nor does S.445. A reasonable increase in the present per incident limitation can be accepted, however. The retrospective premiums provided in the second layer of S.1225 are the maximum that could fairly be imposed with some degree of assurance they could be met. We suggest, however, that clear authority should be given to NRC to take into account, in setting retrospective premiums for classes of reactors or licensees, small unit size or the total retrospective premium resulting from a large number of units on a single system. While we cannot support the third layer of S.1225, or the charge to the Waste Fund, we can and do accept the other features of the bill.

Conclusion

I can summarize the key alternatives before you and their import by referring to the matrix appended to my testimony. The first alternative shown describes either S.445 or S.1761, since neither keeps a reasonable per-incident liability limit. Either of them would effectively abrogate the contract between the federal government and NRC licensees under which nuclear plants have been financed, built and operated. And either of them will assure that there will be no new nuclear plants ordered.

The second alternative is to renew Price Anderson, but make a reasonable increase in retrospective premiums and keep the liability limit at a corresponding level. That alternative is generally acceptable as to existing plants so long as the total potential impact is not so great as to materially affect the cost of money for existing plants. The second tier of S.1225 would be acceptable in this regard. This alternative is essential, though not, of course, in and of itself sufficient, for new commitments to be made.

The third alternative is to allow NRC's authority to "expire." Because what would expire is NRC authority to cover new plants after August 1, 1987, this alternative would leave Price Anderson coverage in effect for existing plants, and it is acceptable as to those plants. However, please note that following this course would leave the rate of increase in the fund to pay claims at present levels, whereas the modified version of S.1225 that we can accept would provide for reasonable increases in retrospective premiums and the fund to pay claims would be up to three times as large. Moreover, under this "expiration" alternative, no new plants would be committed.

I could, of course, go on to expand this matrix to reiterate that charging the Government's liability costs to the Nuclear Waste Fund would violate fundamental fairness and probably preclude new orders, or explain why a $15 million per-unit retrospective premium is the very most that can be accepted. But it suffices to say that the nuclear utilities have shown a remarkable commitment in agreeing to accept as much as a tripling of the present maximum per-incident retrospective premium. There, however, we must draw the line. Imposing greater liabilities begins to be punitive. Permit me to recall that it was at the instance of the Congress and its desire that there be an "Atoms for Peace" program that our industry made tremendous investments. The industry as a whole did so on the strength of congressional assurances that our liability exposure would be co-extensive with insurance coverage. Congress rejected the Columbia Report's recommendation for unlimited indemnity. Congress instead limited liability to the sum of insurance and indemnity. It seems to me that it would be inconsistent and unjust now for the Congress to set about punishing those who responded favorably to Congress's request.

It is my belief that, if we pursue an energy policy which is at all rational, the time will come when we will again look to nuclear power. Price-Anderson in substantially its present form is essential, though not in itself sufficient, to keeping the nuclear option alive. It is a key ingredient to making costs reasonably predictable. Without a system in place that makes potential liability costs quantifiable for new license applications, we will be back where we were during the period between enactment of the 1954 Act and the adoption of Price-Anderson in 1957: we will not be able to obtain the support of designers, smaller vendors and suppliers, and service organizations that we need nor will we be able to raise money at a reasonable cost. Those problems would also apply to existing plants if the quantifiable limit on liability or the other fundamental features of the present system were changed. The industry would not be able to obtain the support it needs to operate, service and maintain existing plants.

The reasons we need limitation on liability are because (1) it makes the system work, (2) the public is better off with the entire system of which limitation on liability is a cornerstone, than without it, and (3) without it, those with a very small stake in the nuclear business as suppliers of parts or services would not accept even the exceedingly remote potential of liability for an accident with major offsite consequences and thus would not provide a competitive marketplace for the parts and services that we need. Moreover, the financial community might not invest at all or would do so only at a cost greatly exceeding what we believe to be the "true" risk.

In short, the fundamental structure of Price-Anderson is sound, should be preserved and should be extended to new applications by legislation along the lines of S.1225 without its third layer or its provision for charging liability costs to the Waste Fund.

We appreciate the opportunity to appear before the Subcommittee. My colleagues and I would be pleased to respond to any questions you might have.

TESTIMONY OF STEVE C. GRIFFITH, JR.
SENIOR VICE PRESIDENT/GENERAL COUNSEL
DUKE POWER COMPANY
ON BEHALF OF
ATOMIC INDUSTRIAL FORUM, INC.
AMERICAN NUCLEAR ENERGY COUNCIL
AND
EDISON ELECTRIC INSTITUTE
ON
THE PRICE ANDERSON ACT
BEFORE THE
SUBCOMMITTE ON ENERGY RESEARCH AND DEVELOPMENT
COMMITTEE ON ENERGY AND NATURAL RESOURCES
UNITED STATES SENATE

June 25, 1985

My name is Steve C. Griffith, Jr. I am Senior Vice President and General Counsel of Duke Power Company. My statement is on behalf of the Atomic Industrial Forum ("AIF"), The American Nuclear Energy Council ("ANEC") and the Edison Electric Institute ("EEI").[1] AIF is an association of over 500 domestic and overseas organizations interested in the development of peaceful uses of nuclear energy. Its members include electric utilities, manufacturers, architect-engineers, mining and milling companies, financial institutions, government entities, labor unions and

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1/ It is my understanding that both the American Public Power Association and the National Rural Electric Cooperative Association will be communicating separately with the Committee on behalf of their respective members in support of legislation to renew the NRC's Price Anderson authority.

others involved in nuclear industry matters. ANEC represents more than 100 organizations having an interest in nuclear power, including privately, publicly, and cooperatively-owned utilities, manufacturers, architect-engineers, and various other firms involved in the nuclear electric power industry and its supporting fuel cycle. EEI is the association of investor-owned electric utility companies and its members generate about 76% of the electricity in the United States.

Members of AIF, ANEC, and EEI have made substantial commitments to the use of nuclear energy in the generation of electricity. Duke Power Company is currently operating six nuclear units and plans to bring a seventh unit on line in 1986.

Mr. Chairman, the Price Anderson law is enlightened, public benefit legislation. I say that not just because it has made possible private investment in realizing the potential of nuclear energy for the generation of electricity, which it has. Even more importantly, in the event of a nuclear accident, it achieves its paramount objective of assuring prompt compensation of legitimate claims from a large pool of funds without unnecessary procedural obstacles.

Back in 1978, I argued the case involving the constitutionality of Price Anderson before the Supreme Court of the United States. The Court not only upheld the constitutionality of Price Anderson, it recognized that Congress had put potential claimants in a far better position for the full spectrum of potential accidents than they would be if left to only the funds of the person liable and conventional tort remedies. I find it surprising and, frankly, disturbing that some of the arguments that were rejected by the Supreme Court in 1978 are still being made in 1985, as if the Supreme Court had never spoken.

The Supreme Court concluded that the public receives substantial benefits compared to conventional legal remedies no matter who is liable. Claimants would receive prompt and, in all but the most improbable accidents, full compensation. Even for a large accident, substantial funds would be available for immediate needs and, the Court emphasized, Congress has pledged to provide such additional compensation as might be warranted. In effect, the Court recognized that while Price Anderson limits liability, it does not limit public compensation.

From the very beginning, the Congress recognized that the limitation on liability would provide a stopping point at which the legislature could, in the event of a very large accident, shift from the tort system managed by the courts, for example, to an administrative compensation system. Under such a compensation system, Congress could, if it wished, eliminate most of the transaction costs associated with tort recovery and even judicial approval of settlements.

Mr. Chairman, there is a limit to our ability to foresee and provide correctly for the full range of circumstances that might prevail after a very large accident. The best-informed estimates are that there would be far fewer early health effects, deaths, or latent health effects than previously supposed, and that the potential for property contamination, evacuation costs and lost wages would predominate. It makes sense to establish mechanisms before the fact to assure a large pool of funds almost immediately, sufficient to deal completely with low-and median-consequence events and sufficient to deal promptly with the more pressing needs for compensation in a high-consequence event. That's what prior Congresses rightly chose to do. But it does not make sense for Congress to tie itself to the tort system and judicial administration of claims when it might be more equitable, more expeditious and indeed less costly to adopt, after the event, other mechanisms to provide and disburse compensation tailored to the peculiar circumstances. Prior Congresses recognized that the limitation on liability preserves this flexibility, which cannot otherwise be cleanly accomplished under our legal system.

Those who would drastically change the fundamental structure of Price Anderson are really saying that they have no faith that Congress will honor the promise of full compensation. At the same time, by suggesting that application of the tort system should be preserved with all of its transaction costs and inefficiencies they are in no way assuring that anyone incurring damages as a result of a nuclear accident would be compensated. Quite apart from that, their approach would require some new approach if any could be devised to secure judicial management of claims for accidents for which primary and reasonable levels of secondary insurance are sufficient and would preclude expeditious adoption of an alternative system for processing claims in excess of insurance.

Critics often charge that the industry has given up nothing and received large benefits in return. Here again, the Supreme Court has spoken, and recognized that Congress sought uniformity because strict liability would not necessarily be clear-cut in every case. The Joint Committee on Atomic Energy was sufficiently concerned in 1965 by the potential problems pointed out by Professor Cavers of Harvard Law School[2] that it enacted the 1966 "waivers of defenses" amendments.

By far the largest and most significant burden assumed by the nuclear utility industry, however, is that all nuclear plant licensees have in effect agreed to be insurers for their fellow licensees, through the restrospective premium system accepted by

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2/ These included possible delays in establishing the application of strict liability in some states and outright obstacles to even strict liability in cases where sovereign immunity applied or statutes of limitations had run, or in the event of accidents caused by natural disasters of unprecedented gravity or the unforseeable supervening acts of third parties.

the industry and enacted in 1975. As in any insurance arrangement, licensees subscribe for no more than a fixed amount (in this case a regulatory and statutory ceiling) but their liability for assessments is truly that of an insurer -- irrespective of any fault or even causal connection to the accident. That is a burden without parallel in any other industry, and if one is searching for a quid pro quo, one need go no further than the public benefits brought about by the retrospective assessments, which assure an additional pool of funds that is presently almost three times the first layer that private insurance provides.

Another argument that critics make is that Price Anderson transfers the risk of accidents to those least able to deal with it, individuals with claims for damages. That is not so. The essence of insurance is risk spreading. The first layer of risk, represented by the first tier of prepaid nuclear liability insurance, $160 million at present, is borne by licensees and their customers to the extent of aggregate net premiums and in the short run by the insurers and their investors (or mutual policyholders) to the extent of greater losses up to policy limits. The second layer of risk, $475 million at present, is represented by the retrospective assessment coverage provided by licensees and administered by the insurers, and is borne by the customers or investors (or both) of nuclear plant licensees. If there is a third layer of risk, that is, if further funds are appropriated in accordance with the Congressional commitment under present law, it is borne by the public at large, which is not unreasonable, since the public at large benefits from the day-to-day avoidance of air and water pollution and low fuel costs characteristic of safe, normal operation of more than ninety (90) nuclear plants across the nation. Those with unsatisfied claims only bear the risk if one grants the critic's premise that Congress will renege on its promise.

Another criticism of Price Anderson is that it fails to punish wrongdoers. It isn't intended to. Let me explain.

When the subject is a public compensation system like Price Anderson, it is well to keep that compensatory purpose in mind and not to be too much distracted by the terminology of our traditional legal process. In particular, Price Anderson uses tort liability merely as the vehicle for compensation. In this context, liability, especially strict liability, does not necessarily have all of the traditional trappings of guilt and punishment. Under Price Anderson, the person (or persons) liable under the omnibus definition of the insured serves merely as a conceptual conduit for the direct payment to claimants of primary and secondary insurance proceeds. Attempting to use this same system simultaneously to punish or exact retribution from putative wrongdoers through exclusions from insurance was considered by the framers of Price Anderson, but was rejected because to do so would have carried a high risk of interfering with the compensatory purpose of the law.

To take just one example, excluding gross negligence was considered and rejected because the grossly negligent defendant might be judgement-proof and in any event could hardly be counted on to have over a half billion dollars of his own funds from which to pay claims. By definition, he would not have applicable insurance. While using the tort system and insurance exclusions to punish would be inconsistent with Price Anderson's compensatory purpose, there is nothing in Price Anderson to preclude (or that would reimburse) civil or criminal fines. In short, when compensation is the goal, and the tort system is the means, it is unwise to attempt to engraft inconsistent notions of punishment on the system. That should be left to the appropriate regulatory mechanisms.

Finally, one hears the argument that Price Anderson was intended to be temporary legislation. The short answer to that is that government insurance (i.e. indemnity) for commercial activities was intended to be temporary, and has, as intended, been phased out under the 1975 amendments. If anyone thought in 1957 that we would find in later years that the potential for a large accident was zero, and hence thought that our society would prospectively no longer need a special insurance and liability system, the error of that premise was clear by the time of the 1965 extension. The probabilities of accidents with offsite consequences are less, and the consequences in terms of human health also less, but neither the probability nor the consequences can be set at zero. I don't know of a single informed person who seriously believes that we don't need a contingency plan for nuclear accident liability. Our most adamant critics complain about special treatment for nuclear power when other industries rely on insurance and standard tort law, but none suggests we abandon mandatory insurance or the waivers of defenses. Those of our critics who have not bothered to familiarize themselves with the history of the nuclear industry and of atomic energy legislation may be unaware that prior Congresses intended to and did enact a system to induce private investment and assure public compensation under which liability coverage coextensive with liability exposure would endure for the duration of that exposure. With your permission, I will now trace some of that history.

Background

The original Price-Anderson law, as enacted in 1957, had the dual purposes of assuring compensation to the public in the event of a major nuclear accident and of removing the potential liability obstacle to private sector investments in nuclear power. The potential liability issue was specifically found by the Joint Committee on Atomic Energy to be a principal factor tending to frustrate the realization of the goals of the 1954 Atomic Energy Act, which had sought, for the first time, to make full use (under a licensing rather than government contract regime) of the free enterprise system in encouraging the widespread industrial applications of atomic energy for peaceful purposes. The potential liability issue and, equally important, the potential chaotic situation for claimants following a large nuclear accident, were pointed out in the study by the Legislative Drafting Research Fund of the Law school of Columbia University entitled, Financial Protection Against Atomic Hazards.

The potential liability obstacle was removed by the enactment of the Price Anderson amendments to the Atomic Energy Act in 1957. The original Price Anderson law provided $500 million in government funds and required that private financial protection (which as a practical matter equated to nuclear liability insurance) be maintained in the maximum amount available, then $60 million. Thus, the original Price Anderson amendments limited liability to the sum of government indemnity and private insurance, which remained at $560 million. Both the private insurance and the government indemnity were "omnibus" in nature, so that not only the named insured (or the person with whom an indemnity agreement was executed) was covered, but any other person who might become liable would thereby become an insured (or a person indemnified).

This "omnibus" feature had important implications for claimants in situations where the only person liable under current legal principles might be underinsured, uninsured or even judgment-proof. The "omnibus" approach to coverage also had important implications in terms of economic efficiency and maximizing insurance capacity. For example, all subtier contractors and suppliers, as well as nuclear steam supply system vendors, architect-engineers, and constructors were covered under a single liability policy and a single indemnity agreement. The insurance premiums and indemnity fees were paid for by the electric utility licensee. The various principal contractors and their subtier vendors and suppliers did not need to buy insurance against this risk and include redundant nuclear liability insurance premiums or liability risk factors in their pricing. Moreover, despite the unusual nature of the risk from the insurance underwriting perspective, (i.e., postulated accidents with very low probability, potentially very large consequences and no actuarial data), the insurers were able to provide what was then an unprecedented amount of capacity. This was because the insurable financial exposure for a single facility could be identified in advance and the risk insured through a single policy. The potential for pyramiding of claims arising out of the coverage, through separate policies, of a large number of related and unrelated parties involved in design, construction or operation of a single facility could thus be avoided and the available capacity of the industry could be committed and would be available no matter what private party, in privity with the licensee or not, turned out to be liable.

The original Price Anderson law also provided for the outlines of a system of claims administration and retained the flexibility to provide by additional legislation for further measures such as direct appropriations to pay claims in excess of the limitation on liability or to establish an after-the-fact alternative administrative compensation scheme for such any excess claims.

In 1965, Congress took up an amendment to extend Price Anderson coverage to facilities that might receive construction permits after August 1, 1967. The extension of Price Anderson coverage to subsequent licensees was passed, along with a technical amendment that had the effect of fixing limitation on liability at $560 million (whereas the original law would have allowed the limitation to "float" upwards with any increases in nuclear liability insurance). Under the amendment, increases in prepaid nuclear liability insurance above $60 million would reduce the government's $500 million indemnity obligation and perhaps even eventually phase out that obligation.

During the 1965 extension hearings, concern was expressed that the original legislation might have fallen short of its goal to provide a high degree of assurance of compensation to the public in the event of a major nuclear accident. Accordingly, building on ideas put forward by Associate Dean Cavers of Harvard Law School, the Atomic Energy Commission, at the direction of the Congressional Joint Committee on Atomic Energy, proposed a series of amendments to Price Anderson in 1966 that were designed to remove unnecessary substantive or procedural hurdles to the speedy satisfaction of legitimate claims. The Atomic Energy Commission proposed, and the industry accepted, a system of mandatory, self-executing waivers of defenses or of elements of claims (e.g., defenses based on assumption of the risk, contributory or comparative negligence, governmental or charitable immunities, or elements of claims based on proof of defendant's fault or claims not brought within applicable state statutes of limitations, but within a three-year discovery and ten-year-from-the-event period provided in the amendments) that, in the aggregate, had the effect of creating strict liability in the event that there was a substantial, abnormal release having measurable and substantial offsite consequence. These changes were incorporated into the 1966 amendments, along with provisions for emergency assistance payments to be made (without securing releases) to cover evacuation expenses and the like, and, when the waivers of defenses apply, provisions for consolidation of claims in a single federal district court.

In 1975, further refinements were made to the public compensation features of Price Anderson and to phase out major reliance on government indemnity for accidents involving large commercial nuclear power facilities. The 1975 amendments extended the waivers of statutes of limitations from those shorter than ten to those shorter than twenty years (while retaining the three-year discovery provision). They also established a secondary layer of retrospective premium insurance that would involve assessments of between $2 and $5 million per reactor (as established by NRC) against each licensee for any one nuclear incident. This system was coupled with the limitation on liability provision in such a way that the retrospective premium insurance would phase out government indemnity (as it had earlier been hoped prepaid insurance would do). At that point, the limitation on liability would equal the sum of primary and secondary coverage and would "float" upwards both as prepaid insurance increased and as more facilities received operating licenses. In these respects, the Congress sought to accelerate the "phasing out" of government indemnity initiated by the 1965 amendments and to return to the original concept of a "floating" limitation on liability. The 1975 amendments also extended Price Anderson coverage to facilities that received construction permits after August 1, 1977. Finally the 1975 amendments provided more clearly in subsection 170 e and 170 o what had theretofore been stated only in the legislative history: that Congress would provide compensation for claims in excess of the limitation on liability, should that situation ever arise.

It is important to understand that Price Anderson involves a balancing of benefits and burdens. This was recognized the the Supreme Court in its 1978 decision in Duke Power Company v. Carolina Environmental Study Group, when it said:

> "The Price Anderson Act not only provides a reasonable, prompt and equitable mechanism for compensating victims of a catastrophic nuclear incident, it also guarantees a level of net compensation generally exceeding that recoverable in private litigation. Moreover, the Act contains an explicit congressional commitment to take further action to aid victims of a nuclear accident in the event that the $560 million ceiling on liability is exceeded. This panoply of remedies and guarantees is at the least a reasonably just substitute for the common-law rights replaced by the Price Anderson Act."

As mentioned above, it is also important to realize that Price Anderson achieves a true economic efficiency by avoiding the layering of insurance premiums and/or risk factors in pricing. It does this by effectively "channelling" the financial burden of liability for offsite damages to the licensee operating the nuclear power reactor and providing for potential, but limited assessments against other licensees. Limitation on liability is an essential ingredient to achieve channelling under the fundamental Price Anderson technique of leaving liability to state law but superimposing waivers of defenses and limitation on liability as a matter of federal law. The Price Anderson system involves a delicate balance of mutually interdependent elements. The licensee coverage worked well in the case of TMI, the only instance in which it has been substantially called upon.[3] Price-Anderson, as it now stands, seems to achieve the goals that Congress had for it and its basic structure ought not to be changed absent the most compelling reasons. We have not seen any evidence of deficiencies that would require changes, such as the wholesale restructuring involved in some of the NRC recommendations and proposed in S. 445. But first, let me address the most recent bill, S. 1225.

S. 1225

Mr. Chairman, inasmuch as an excellent summary and section-by-section analysis of S. 1225 appears in the Congressional Record for May 24, 1985, I will not even attempt to summarize the bill. Instead, let me just say that we are gratified to see that S. 1225 retains the fundamental structure of Price Anderson, including especially a definite limitation on liability. A definite limit is essential because it is a keystone to channeling and avoids the fragmentation of insurance, thus assuring substantial funds to pay claims no matter who is liable. A definite limit also minimizes

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3/ I will discuss later NRC's rulemaking activities to make the administration of the extraordinary nuclear occurrence determination even more workable.

the imposition of artificial costs through the addition of risk factors on the sale of our securities and permits the transition to an alternative compensation system, as I discussed earlier.

However, under S. 1225, the proposed financial burden on licensees in no way at fault, causally connected to, or in a position to prevent the accident, and on their customers and investors or both, is too great. NRC would probably set the secondary assessments at the maximum $15 million. Add to this a licensee's share of an additional $500 million in the proposed third layer, and the burden on those not responsible for the accident is even greater. We recognize that the bill would permit NRC to set annual limits on assessments or collections under both the second and third layer, but there is no assurance that this would be done and the total is in any event too large, considering that quite a number of licensees have multiple operating plants.

As to the concept of the third layer, we believe that it suggests an interesting alternative to increasing retrospective assessments above present levels, and that it is certainly preferable to the NRC proposal of indefinite assessments of $10 million per license per year. However, there are some drawbacks to using such a device to generate funds to pay claims, and other alternatives based, for example, on licensed capacity might be preferable to increasing the second layer and adding a third as the proposal is presently framed.

Our organizations have already testified before the other body, Mr. Chairman, in favor of H.R. 51, which would simply double the maximum retrospective premium per incident to $10 million, and that is the approach that we recommend for your consideration.

Turning to the clarifying and perfecting amendments that would provide procedural mechanisms for expeditious action on recommendations from the President as to how best to provide full compensation even if all primary and secondary insurance proceeds are exhausted, we believe that such measures would provide even greater assurance than the present law that Congress means to see that full compensation is provided, and we endorse them in principle.

One final point on S. 1225 that must be addressed is of course that it would make more certain coverage for claims arising out of the activities of the federal government or its contractors in the high level waste repository program or related transportation. We, of course, agree that such coverage is in order, though we think that the proposed backcharge to the Waste Fund is unwarranted. We do not believe it was ever intended, and do not think it appropriate now, to put licensees in the position of insuring the government for its own actions or those of its contractors, when licensees have no means of controlling or supervising those activities.

COMMENTS ON S. 445 (HART)

This bill would destroy the delicate balance of competing objectives and interdependent parts which make Price Anderson function. We are opposed to each of the amendments which would be accomplished if the bill were to be enacted.

Section 2 of S. 445 would eliminate subsection 170 e, thereby eliminating both limitation on liability and the Congressional commitment to provide full compensation to the public in the event funds available under the Price Anderson system were insufficient (See subsections 170 e and o of the existing law). We are opposed to these features of the bill. Limitation on liability is one of several interdependent parts that permit Price Anderson to operate and to achieve economic efficiency through channeling of the financial burden of liability to licensees.

Moreover, repeal of limitation on liability would be unfair to the industry and to those investors who have relied upon this protection in making heavy investments in nuclear power in response to federal policy to encourage those investments. Such a repeal would be unfair also because it would leave in place all of the burdens accepted by industry in return for limitation on liability, including the waivers of defenses, the "omnibus" feature, and the retrospective premium secondary layer of insurance coverage. Finally, we cannot understand why the Congress would want to retreat from its commitment to the public to provide compensation if other resources should prove insufficient.

Section 3 of the bill would have the effect of extending the waivers of defenses to any nuclear incident, which at present are "triggered" by an NRC extraordinary nuclear occurrence determination. This would apply federal strict liability to claims based on normal operating releases and to onsite exposures. An extraordinary nuclear occurrence must involve both a substantial release of radioactive material from its intended place of confinement and some non-trivial offsite consequences. A nuclear incident, on the other hand, can be any factual situation that gives rise to liability and stems from the radioactive, toxic, or other peculiarly hazardous properties of the materials regulated under the Atomic Energy Act.

We are aware of no purpose that would be served by giving onsite workers an additional strict liability claim (*i.e.*, in addition to workers' compensation) as this bill would do nor by applying strict liability as a matter of federal law to claims that allege nothing more than normal operating releases to offsite areas. It is simply illogical to provide for federal safety standards intended to protect the public and at the same time encourage claims that need not even involve a violation of those standards by according them strict liability treatment. Accordingly, we oppose this amendment.

Section 4 of the bill would delete the waiver of statutes of limitations shorter than 20 years, while retaining only the three-year discovery period. We are opposed to this change. A reasonable outside limit is necessary because objective adjudication becomes impractical when claims survive indefinitely. Severe problems of staleness of evidence and the unavailability of witnesses to give contemporary meaning, interpretation and context to such evidence, along with the need for repose and certainty at some point are among the reasons why we have statutues of limitations and should retain a reasonable outside limit.

NRC'S 1983 RECOMMENDATIONS

Rather than cover each of the recommendations in the 1983 NRC report, I will touch on some of the principal ones.

Extension

In Section IV of the December, 1983, NRC Report, the Commission recommends that Price Anderson coverage be extended to cover plants licensed after August 1, 1987, on the same terms that it is retained for those plants that have already received construction permits or operating licenses by operation of the existing law. In other words, the NRC does not favor different insurance or liability arrangements for plants licensed after August 1, 1987, but recommends that existing and future plants be subject to the same system. Viewed separately from the other recommendations, we could support that recommendation, but as I will explain shortly, we are opposed to most of the other recommendations, and especially to the one that would effectively abolish limitation on liability, even for existing licensees.

Limitation on Liability

The Commission further proposed that the present $5 million per licensed reactor per nuclear incident retrospective premium assessment,[4] and the current floating but ascertainable limitation on liability, be replaced with a $10 million annual cap on assessments, but no limitation at all on liability per incident. This has the effect of creating unlimited liability and unlimited assessments subject only to an annual limit on the drain on utility cash flow. We are opposed to this NRC recommendation. As a matter of fairness, the industry, its suppliers and investors have proceeded in reliance upon an ascertainable limitation on liability, and imposing the obligation of being insurers in an unlimited amount on all licensees is simply wrong. While the present retrospective premium assessment can be characterized in insurance parlance as a mechanism to permit adjustments up to an agreed level in underwriting estimates for a covered group to

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4/ The present law also provides for a $10 million per year limitation on assessments against any one licensed reactor irrespective of the number of nuclear incidents for which assessments might be made. In the unlikely event of multiple nuclear incidents, this can have the effect of deferring the full $5 million per nuclear incident per reactor assessment for any of those multiple nuclear incidents to a second or subsequent year.

arrive at the "true" premium reflecting adverse experience, there are no justifications for imposing unlimited liability on the entire industry if one facility is so unfortunate as to have a major accident.

Even more importantly, given the qualms in the financial and investment communities about nuclear power today, it would introduce an additional premium in the cost of utility capital, both debt and equity, to impose unlimited liability, subject only to an annual cap. The public as a whole is better served by a system that retains the present structure of the Act. If, as we all firmly believe, an accident having major consequences for the offsite public will never occur, then consumers are better served by a system that does not impose artificial costs, provides a high degree of assurance of full public compensation for the least unlikely events, and provides the fallback of federal intervention for a truly major accident just as would be the case for a natural disaster of comparable magnitude.

In summary, we cannot support the 1983 NRC proposal for elimination of a definite limitation on liability.

Extraordinary Nuclear Occurrence

A majority of the NRC in 1983 also recommended retention of the extraordinary nuclear occurrence concept in the present law. The function of that concept is to provide for a threshhold determination by the NRC that a significant release of radioactive material from its intended place of confinement has in fact occurred and that it has had, or will have had, more than trivial offsite consequences. We support this recommendation. The original reason for an appropriate threshhold before invoking strict liability as a matter of federal law remains as valid today as it did in 1966; to minimize frivolous claims based on normal or off-standard operating releases that are still comparable to applicable regulatory limits.

The alternate recommendation favored in December, 1983, by two members of the Commission is along the lines of provisions of S. 445, that is, that the waivers of defenses be extended to any nuclear incident. It is worth repeating the implications of such a fundamental change. A close reading of the present Act's definitions of "extraordinary nuclear occurrence," "nuclear incident," and "public liability" will reveal that the effect of extending the waivers of defenses to any nuclear incident would be to provide federal strict liability as to claims that allege no discernable event, no violation of regulatory limits, no release of radioactive material from its intended place of confinement at the reactor site or in a shipping container, and no offsite consequences. One effect of such a modification would be to provide an additional strict liability remedy to onsite workers who already have a strict liability remedy in worker's compensation. Onsite worker's compensation claims (as opposed to tort claims against persons other than the employer) have always been excluded from Price Anderson. If there are any problems in the administration of the extraordinary nuclear occurrence determination, I am sure that the industry will cooperate with the NRC in fashioning a more workable but still meaningful standard. NRC has embarked on a rulemaking intended to remedy the difficulties experienced in utilizing the present standards.

On April 9, 1985, the NRC published a majority proposal and two alternatives for revising the criteria for determining whether an incident at a nuclear power plant is an "extraordinary nuclear occurrence" ("ENO"). The current criteria for an ENO are codified in 10 C.F.R. §§ 140.84 and 140.85.

As you know, if an event is classified as an ENO, claimants under Price Anderson are relieved of the burden of proving negligence by the defendant and of overcoming such defenses as contributory negligence, governmental immunity, and certain statutes of limitations. See 42 U.S.C. § 2210.n(1). The NRC is proposing changes to the ENO criteria as a result of difficulties reported by its staff in applying the existing criteria after he accident at Three Mile Island (which was determined not to be an ENO).

The statutory definition of an ENO is entirely satisfactory, necessary, and should not be changed. It is as follows:

> The term "extraordinary nuclear occurrence" means any event causing a discharge or disposal of course, special

> nuclear, or byproduct material from its intended place of confinement in amounts offsite, or causing radiation levels offsite, which the Commission determines to be substantial, and which the Commission determines has resulted or probably will result in substantial damages to persons offsite or property offsite.

42 U.S.C. §2014.j. Thus, the Act establishes that a nuclear incident constitutes an ENO if there is "substantial" release of radioactive materials offsite and the releases result in, or will result in "substantial" injuries to persons offsite or damages to property offsite.

The current regulatory criteria for determining whether there have been substantial releases and substantial injuries and/or damages are somewhat complicated, but they set dose tests and property contamination tests to meet the first statutory standard and health effects or property damage tests to meet the second standard. The majority proposal on which NRC has invited comment would mainly lower the dose test for the first standard and lower and simplify the tests for the damage standard. Although a number of improvements may well be possible in both the present tests and the various NRC proposals, these will be handled in the comment process and there is no need for statutory change.

Claims Expense

Finally, the NRC recommends that Congress "clarify" its intent as to the exclusion from government indemnity of the costs of investigating and settling claims and defending suits for damages. The Commission strains the word "clarify" in this context. The 1975 amendments are quite clear. The Department of Justice has opined to the effect that the exclusion applies to indemnity, but does not apply to either primary or secondary financial protection. To the extent that the Commission is in fact recommending that a similar exclusion be applied to primary and secondary insurance coverage, we are strongly opposed. Such an exclusion would be both unfair and unworkable.

The Commission Staff or its consultants writing on this matter in the subject report appended to the main report emphasize that "conventional" liability policies include no limitation on the insurer's obligation to defend; defense and claim costs are not counted toward policy limits. What the authors overlook is that such "conventional" policies are not written on an "omnibus" basis. For the insurers to defend a named insured without explicit limit is one thing; to seek to oblige them to defend any potential defendant (and in an extraordinary nuclear occurrence situation, it could be hundreds or even thousands of potential defendants) is manifestly unjust and economically unrealistic. As a practical matter, if such costs and expenses were excluded, the insurers would have no alternative but to reduce available policy limits to allow for their best estimate of probable maximum claims expenses and defense costs. In any event, we understand that insurers are moving in the direction of counting such costs toward conventional policy limits.

Conclusion

In closing, I would simply emphasize that S. 445 would effectively destroy the intricate, carefully balanced, workable and societally desirable system of public compensation and economic efficiency achieved in the existing Price Anderson law. The 1983 NRC proposal for assessments for an indefinite period would make licensees insurers without limit and without just compensation. With the exception of the extension of coverage to include future plants, which we support, and retention of the statutory ENO concept, with which we agree, the other NRC recommendations have not been shown either necessary or desirable. The policy of Price Anderson has always been and should continue to be to assure speedy satisfaction of legitimate claims. Proposals to remove the limit on liability or extend the waiver of defenses to normal operations are really efforts to penalize the industry for carrying out the task Congress asked it to undertake, and do nothing to further the goal of compensation. S. 1225, on the other hand, is a responsible proposal which has some good features, but we submit that an approach along the lines of H.R. 51 is preferable and should be enacted.

* * * *

Responses to Questions Addressed
To
Steve C. Griffith, Jr.
Senior Vice President & General Counsel
Duke Power Company
By
Senator Pete V. Domenici
Chairman
Subcommittee on Energy Research and Development
Committee on Energy and Natural Resources

1. Q. Do you think that the nuclear industry is held sufficiently accountable for its activities? Could you explain how the activities of the NRC, INPO, and other institutions serve to promote and enhance the safety of nuclear power plants?

A. As I discussed in my prepared testimony, the Price-Anderson system is not intended to, and should not be used to, hold the nuclear industry accountable for its activities. The Price-Anderson system is intended to deliver compensation for legitimate claims in the unlikely event of a nuclear accident having substantial off-site consequences. The tort system is merely a vehicle for delivering that compensation. Congress has already provided both civil and criminal penalties in the Atomic Energy Act as well as a comprehensive licensing and regulatory scheme. It is to this complex of provisions that attention should be directed when the question is raised whether a culpable party can escape being punished or made an example of for compromising the public health or safety.

In addition to statutory and regulatory systems which provide safety assurance and incentives, there are ample economic, personal and professional incentives to assure safety on an individual, a corporate, and an industry-wide basis. The nature of nuclear accidents involving substantial releases that might affect the persons or property off-site is that any such accident would almost inevitably involve enormous damage to the facility itself. In addition to direct physical damage, substantial costs would likely be incurred for decontamination and perhaps other measures necessary to contain radioactive material to the site. Further, as Duke Power Company predicted in testimony before the U.S. District Court in 1976, and as the Three Mile Island Unit 2 accident confirms, very substantial additional expenses would be incurred for energy purchases to make up for the loss of the unit in which the accident occurred and shutdown of other similar units on the same site. Depending on the circumstances, similar units on the same utility system and possibly even on other systems might also be shut down.

At an individual level, plant employees and managers generally have homes and families, friends and neighbors near the nuclear unit. The incentive to act carefully and responsibly arising from this factor is probably more powerful than any notion of corporate economic health.

NSSS vendors, architects, engineers, constructors and other suppliers have a very substantial stake in the safe operation of nuclear power plants which they helped design, construct or maintain. Not only would a substantial accident traceable to their activities have a major impact on professional reputations and standing, it would almost certainly affect future sales of goods and services to the utility industry, and could subject suppliers to claims by utilities or others for claims not covered by Price-Anderson, such as loss of on-site property. Although liability for damage to on-site property is normally limited by contractual arrangements between the utility and the vendor or supplier, the extent to which such contractual provisions provide complete protection has not been fully litigated.

Insofar as the activities of the NRC are concerned, the main reason for the NRC's existence is to assure the public health and safety through a comprehensive system of licensing, regulation, inspection and enforcement. Each nuclear utility licensee is held strictly accountable for compliance with applicable regulations by the NRC. The NRC has an extensive inspection and enforcement program to ensure that its regulations are met, and has full authority to take whatever action may be deemed necessary for protection of the public health and safety, including orders for plant shutdown or license revocation.

The Institute of Nuclear Power Operations sets standards of excellence above and beyond the minimum essential requirements contained in the NRC's regulations, and all INPO members are expected to be, and have been, responsive to INPO's guidance. Special procedures are in place to provide INPO with guidance in the event that a utility member is not responsive, which ultimately could result in a decision to suspend the utility from INPO membership. This undoubtedly would have major impact on the utility's standing with the NRC, with its peers, with its insurers, and in the financial markets.

In addition, nuclear utilities are subject to inspections directly by their insurers. These inspections cover areas such as pressure vessels, fire protection, and various plant machinery. Both property and liability coverage may be suspended if conditions are unsatisfactory.

2. Q. It was largely due to the efforts of the nuclear utilities that we were able to phase out government indemnity of nuclear utilities, by replacing this indemnity with the pooled "retrospective-premium" system that was added to Price-Anderson in 1975. Now, this was a significant change to the Price-Anderson scheme, and it represents a willingness on the part of utilities to contribute substantial amounts of money to pay for claims arising from an accident for which they had no direct responsibility.

Now there is a point at which this willingness to share responsibility for someone else's misfortune might break down. Where do you think this breaking point might occur? Is there some point at which Duke Power would say "enough is enough"?

A. As has been mentioned in testimony before this and other Congressional committees, there is a point at which it is unreasonable to expect licensees to act as insurers without compensation and without limit for other licensees. There is no formula that we know of that would yield a satisfactory answer under all circumstances for all utilities (which have diverse forms of ownership and financial structures ranging from federal agencies to large and small investor owned utilities, to state and municipal utilities and rural electric cooperatives) .

It is our belief that most utilities could meet an assessment roughly double that under present law, but that few utilities (excepting, that is, the very large ones with the fewest nuclear units) could or should be expected to meet assessments at a level as large as three times or more the present assessment. Utilities depend on credit, and in a post-accident economic environment, nuclear utilities may have grave difficulty obtaining credit. In the interest of providing a specific answer to a specific question, we believe that $10 million per nuclear incident per licensed reactor is about the most that can be fairly expected of licensees in no way responsible for an accident.

3a. Q. What would be the effect of imposing strict, unlimited liability on nuclear plants, especially as to the impact this would have on the investment community, the insurance market, the stockholders, and the consumers?

A. It is our understanding, confirmed by correspondence addressed to the House Interior Committee, that the investment community would not react favorably to repeal of limitation on liability or the imposition of unlimited retrospective premium assessments on nuclear plant owners, and that in all likelihood either measure would increase the cost of capital to a utility. Since the cost of capital is typically one of the largest, if not the largest, cost to an electric utility it would increase the cost of service and the required return on equity, thereby increasing the price of electricity to consumers. This would occur because of the perception of financial risk to investors and hence an additional reward would be demanded, even though it is extremely unlikely that such cost would ever be incurred because the possibility of an accident with major off-site consequences remains extremely small.

Because changing the present system to provide either unlimited liability or unlimited assessments would destroy economic channeling of liability costs, either measure could be expected to lower the nuclear liability policy limits available to any one named insured. This is because vendors, service organizations, and other suppliers would demand separate coverage for their own exposure while the insurers would seek to limit their risk at any one nuclear site to present levels, which means that the sum of the policy limits in each of those separate policies would not exceed the present "omnibus" policy, but not all insureds would necessarily be liable.

3b. Q. What would an unlimited liability scheme such as the NRC's 1983 concept do to the pooling concept? Would utilities still be willing to contribute on an annual basis for an unlimited number of years to pay for someone else's accident?

A. Much of what has been said in response to Question 3a. is equally applicable to the 1983 NRC proposal. In answer to the specific question in the second sentence, we believe that it is fair to say that utilities would not be willing to make retrospective premium payments for an unlimited number of years even if the annual installment were limited to the present $5 million, much less the proposed $10 million.

4. Q. If this Congress were to pass S. 1225 as it now stands, what effect would a $15 million retrospective premium have on a typical utility in terms of (a) the average rate increase to customers, or alternatively, (b) the average earnings on common stock?

A. It has been our experience that one should view with caution analyses which proceed by breaking very large numbers down into seemingly modest numbers by finding some large divisor (e.g. numbers of customers or shareholders) to apply to those numbers. The fact that the change in a typical customers' monthly bill may appear small does not change the fact that the dollar figure of the assessment we started with is very large compared to cash on hand, and credit may be unavailable. In the case of Duke Power Company, for example (and its co-owners in the case of the Catawba units), the total retrospective premium assessments under the second tier of S. 1225 would amount to $105 million in a single year, even before the additional impact of the third tier. That is simply too large a burden to place on a single company and its customers and/or shareholders for someone else's accident.

The impact of a $15 million retrospective premium would vary depending on the size of the company, the number of nuclear units operated by the company and the relationship of the number of these nuclear units to the size of the company. Based on these variables, a $15 million retrospective premium could represent anywhere from 1 to 3% of a company's rates and perhaps 9 to 14% of earnings on common stock.

5. Q. Some people believe that the current limitation on liability in Price-Anderson is a disincentive to safety. Do you agree?

A. Limitation on liability is no more a disincentive to safety than liability insurance itself or the corporate form of doing business. If limitation on liability were a disincentive to safety, then all corporations (which have limited liability by virtue of being such) would have such disincentive. So also would medical doctors and hospitals which have limitations on liability in many jurisdictions and the many governmental and not-for-profit institutions that have governmental or charitable immunities from tort liability. So also would any employer with respect to his labor force inasmuch as workers compensation claims are limited to a schedule of benefits. So also, finally,though there are many other examples, would shipowners whose liability is limited to the post-accident value of the vessel and pending freight. The argument about limitation on liability and safety incentives is essentially the same pre-Victorian argument that was made against liability insurance but has long been rejected by legislatures and courts.

As we mentioned in response to the first question, the proper places to look for incentives to safety are in the personal, professional, and economic self interest of the owner and supplier organizations and their employees, in industry self-policing activities and, lastly but not least, in licensing, regulation, inspections, and enforcement programs of governmental authorities, including the possibility of civil or criminal sanctions for serious violations. As we stated in response to question 1, Price-Anderson is intended to deliver compensation, not to punish putative wrongdoers. To attempt to use it to do both is likely to lead to compromising the compensation objective, placing unfair burdens on the innocent (both industry and public) and providing a legacy for generations of lawyers.

6. Q. Under the present law and current insurance policies, how are the costs of investigation and settlement of claims covered? Should such coverage be excluded from within the liability limit, so as to maximize the funds available to compensate for injuries.

A. Under the present statutory provisions governing primary and secondary financial protection, and under the respective policies of insurance implementing those provisions, the cost of investigating and settling or defending claims is counted toward policy limits. Historically, many liability policies obliged the insurer to defend a single named insured in addition to reimbursing the insured for judgments or settlements up to a stated policy limit. But that is a very different matter from a policy written on an "omnibus" basis, under which the insurers could be required to defend hundreds of defendants in as many separate courts. Moreover, we are advised that the trend in liability insurance is to include such costs in policy limits as has always been done with nuclear liability insurance. There is no more reason to "maximize the funds available to compensate for injuries" by excluding defense costs than there is to achieve the same objective by limiting contingent fees on the part of plaintiffs' counsel. If such a measure were enacted, it would simply lead to a reduction in primary insurance and possibly to a gap between financial protection and statutory requirements since it does not appear that unlimited liability for defense costs could be imposed either unilaterally on the insurers or other licensees. It would be unjust to leave a licensee with responsibility for paying the costs of investigating and settling or defending claims against all other defendants on an omnibus basis in an unlimited amount. It would be unfair also to impose such a substantial expense retroactively on non-licensees who might be named as defendants. Under present or prior law, such parties have had no reason to include such risks in their pricing or set up reserves for dealing with them.

7. Q. Would the costs of precautionary evacuations be covered under current nuclear insurance policies?

A. It is our understanding that the nuclear insurers take the view that precautionary evacuations would be covered under current forms of primary and secondary nuclear liability insurance assuming that such evacuation was ordered by duly constituted authority. To the extent that there is legal liability for expenses legitimately incurred as a result of such governmental order, we would concur with that view. We are not sure that we completely understand the basis for the doubts expressed by the NRC regarding such coverage under the statute insofar as it pertains to indemnity agreements where such agreements many still play a role. Since a nuclear incident requires only

> "an occurrence . . . causing . . . loss of or damage to property, or loss of use of property arising out of . . . the radioactive . . . or other hazardous properties of . . . special nuclear or byproduct material . . . "

and not necessarily a release of such material from its intended place of confinement, we would think that the statute was intended to, and does cover such legal liability as there may be under applicable law for claims for legitimate expenses incurred in a duly initiated precautionary evacuation.

In short, it would appear that there can be "public liability" for a " nuclear incident" even though the anticipated release of radioactive materials in excess of license or regulatory limits never occurs.

8. Q. In Commissioner Bernthal's testimony, he addressed the issue of punitive damages. In his opinion, if punitive damages were allowed to be paid with Price-Anderson insurance funds, this would remove the deterrent value of such damages, because the insurance pools, and not the utility at fault, would be responsible for the payments. Do you agree with Commissioner Bernthal that punitive damages should not be insurable under the Price-Anderson Act?

A. While we believe that Commissioner Bernthal is correct in his underlying concern regarding punitive damages, as indicated in response to Question 9 below, we strongly disagree with the notion that punitive damages should be excluded from Price-Anderson coverage. As long as punitive damages can be awarded in the unbridled discretion of juries applying their own notions of the degree of care required in dealing with nuclear facilities and materials, regardless of compliance with NRC regulations or indeed applicable radiation standards, there is no assurance that such damages would not be imposed on persons who have neither done any wrong nor breached any recognized duty.

There is no basis to conclude that juries must be appropriately instructed in the awarding of punitive damages arising out of even closely-regulated activities, and specifically that they would be instructed that they could not assess punitive damages merely because of ownership or operation of a nuclear facility duly licensed by the NRC and operated in full compliance with all applicable requirements. It must also be remembered that while the imposition of punitive damages on non-culpable parties is a distinct possibility under present law, no insurance other than nuclear liability insurance under Price-Anderson is available against such exposure. Moreover, no less an authority than a Supreme Court Justice has pointed out that in some jurisdictions, the line between punitive and compensatory damages is less clear than in others, for example, where "punitive" damages are allowed for elements of damage not recognized as compensatory under state law. In those instances, delivering the compensation may require insurance without exclusion, otherwise recovery could not be had from insolvent defendants.

As noted in response to Question 1 above, punishment of culpable licensees and other parties can and should be achieved under the civil and criminal enforcement provisions of the Atomic Energy Act.

9. Q. Commissioner Bernthal also commented on the Silkwood decision, in which the Supreme Court held that a state may award punitive damages against an entity regulated by NRC for actions the jury finds negligent, even though no NRC regulations were violated. In Commissioner Bernthal's opinion, this decision sets a bad precedent, because it in effect allows "every jury in America . . . (to) theoretically serve as its own Nuclear Regulatory Commission."

Do you agree with Commissioner Bernthal's opinion? Do you feel that Congress should amend the Atomic Energy Act to reaffirm its principle that a licensee fully in compliance with NRC regulations should not be held liable for punitive damages?

A. Commissioner Bernthal is in general quite correct in his concern for federal preemptions following Silkwood. The effect of the Silkwood decision is to open a vast breach in the practical effect of federal preemption over the radiological health and safety regulation of nuclear facilities. We would agree with the thrust of Commission Bernthal's recommendation that the effect of the Silkwood decision should be countered by making clear that the federal government has preempted (via the licensing, regulatory, inspection, and civil and criminal enforcement provisions of the Atomic Energy Act and the activities of the NRC carrying out those provisions) the function sometimes otherwise served through punitive damages. This preemption question is not, however, one that primarily involves Price-Anderson and need not be resolved on the same schedule.

10. Q. If waiver of defenses were applied to all nuclear incidents, would this provide an additional strict liability remedy to on-site workers, who already have a strict liability remedy in workers' compensation? Is it wise to provide a strict liability remedy for radiation releases that may in fact be within radiation limits established by the NRC?

A. As I indicated in my prepared testimony, waiver of defenses for any nuclear incident (not for extraordinary nuclear occurrences only under present law) would provide an additional strict liability claim to on-site workers who already have such a remedy under workers compensation. They could simply name any plausible defendant other than their employer who would then be required to waive defenses -- even though under otherwise applicable law, strict liability would not be appropriate. For example, there might have been no release of material from its intended place of confinement and no violation of regulatory requirements. The defendant may not have been required to foresee the particular risk to persons like the claimant, or the claimant might have assumed the risk or been contributorily negligent.

Moreoever, it seems wholly unwise to invite a flood of claims from persons near or distant from a facility by requiring waiver of defenses to allegations based on outlandish claims or misapprehensions as to the effects of normal operating releases. Since, as partially explained above in response to Question 7, a nuclear incident need not involve a release in excess of normal operating limits, removing any threshold for the invocation of the waivers of defenses would result in the expenditure of resources (that should be reserved for legitimate claims) on frivolous ones which would, however, be made more difficult to defend.

ENVIRONMENTAL POLICY INSTITUTE

Testimony of
Keiki Kehoe,
Environmental Policy Institute
accompanied by
Michael Faden,
Union of Concerned Scientists
and
Kathleen Welch,
U.S. Public Interest Research Group

on behalf of
Environmental Action, Inc.
Environmental Policy Institute
Friends of the Earth
Nuclear Information and Resource Service
Public Citizen
Sierra Club
Union of Concerned Scientists
U.S. Public Interest Research Group

before the
Nuclear Regulation Subcommittee
of the
Senate Committee on Environment & Public Works

October 23, 1985

Thank you for this opportunity to present our views on the renewal of the Price-Anderson Act, one of the most important energy issues before this Committee. As you know, the central question Congress will face is: who should be responsible for compensating the public after a nuclear accident? Our testimony today is divided into two parts.

Part I explores six fundamental issues:

1) What goals should Price-Anderson achieve?
2) Is the current Price-Anderson Act good public policy?
3) How important is industry accountability?
4) How well do the proposals before Congress achieve the dual goals of accountability and compensation?
5) The industry position: contradicting logic
6) The basic issue of fairness

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Part II addresses eight additional issues which are critical to a comprehensive reform of the Price-Anderson Act.

PART I: THE CENTRAL ISSUE OF LIABILITY

WHAT GOALS SHOULD PRICE-ANDERSON ACHIEVE?

As Congress considers a third renewal of the legislation intended to protect the public from the financial consequences of a nuclear accident, it is essential to begin with a thoughtful evaluation of the policy goals that should be achieved. We strongly believe that the public deserves a balanced and comprehensive federal policy which reduces the risk of a nuclear accident and assures full compensation for the public in the event of an accident.

Unlike past renewals, the issue this year is not extension of the Act to assure stability in the nuclear industry's planning process. If Congress simply allowed the Act to expire, every existing nuclear plant, including those under construction, would continue to be covered. Indeed, some will argue that Congress should let Price-Anderson expire, since no utilities have expressed an interest in ordering new reactors. We do not agree.

There are currently 94 nuclear plants covered under Price-Anderson, and about 25 more under construction. A catastrophic accident at any one of these facilities could cause tens of billions of dollars in damage to neighboring communities. The limit on liability for all NRC-licensed activities stand at $640 million. Department of Energy contractors at an estimated 280 facilities are engaged in activities involving risks to the public significant enough to require Price-Anderson indemnity agreements. [1] The liability of the federal government for damages caused by contractor activities is limited to $500 million. If Price-Anderson expires, DOE may not have the authority to enter into new indemnity agreements with its contractors.

One of the most significant differences between this Price-Anderson renewal and those of previous years is the issue of high-level radioactive waste. The DOE is considering sites in 23 states [2] for construction of a high-level nuclear waste repository. Several states being considered for the first repository have strongly objected to the $500 million limit on liability. DOE's insistence on limiting liability for damages to the public arising in the course of transportation, storage and disposal of high-level nuclear waste is threatening the success of the entire repository program.

The hazards that the Price-Anderson Act was intended to protect against will not disappear with the expiration of the Act; the risk of an accident with catastrophic consequences will continue for decades to come. Although the probability and consequences of a catastrophic nuclear accident continue to be the subject of considerable uncertainty, recent NRC estimates indicate that we may be facing a 50-50 chance of experiencing a core meltdown at a licensed commercial reactor within the next 20 years. If such an event resulted in an off-site release of radiation, NRC documents suggest that a "mean" accident at the Indian Point reactor would cause roughly $10 billion in damages.[3]

A balanced and comprehensive public policy would do the following:

- prepare for a "worst case" accident before it happens, rather than holding victims of a several billion dollar accident hostage to the political vagaries of a future Congress;
- assure that a mechanism is in place to provide timely compensation for all public damages;
- assure complete parity for all nuclear accident victims, rather than establishing a double standard which discriminates between victims of a commercial nuclear accident and those harmed by federal nuclear activities;
- not allow companies that are negligent to be "held harmless" for damage they inflict on the public;
- not provide a "blank check" at taxpayers' expense to cover damages beyond an arbitrary limit;
- stimulate increased coverage and involvement in managing nuclear risks by commercial insurers, and seek private-sector solutions to the greatest extent possible;
- cover all nuclear risks, including federal contractors and the entire nuclear fuel cycle.

In short, a balanced nuclear accident policy would achieve two goals. It would reduce the likelihood of an accident by establishing strong incentives for safety and high standards of industry accountability. And it would establish a system which assures full compensation for all damages to the public if an accident happens. As the next section will explain, the current Price-Anderson system fails to accomplish either of these goals.

IS THE CURRENT PRICE-ANDERSON ACT GOOD PUBLIC POLICY?

The original intent of the Price-Anderson Act was to balance the promotion of the fledgling nuclear industry with the need to protect the public in the event of a nuclear accident. The system as it has evolved over the past three decades is routinely referred to as a "delicate balance" by advocates for the nuclear industry. A close examination of this "balance" reveals a program which grants most of the benefits to the nuclear industry and shifts all of the risks and uncertainties to the public. This conclusion is reached by comparing the financial protection of a utility after an accident with the protection provided for members of the public.

In the event of a serious nuclear accident, the owner/operator of a nuclear plant can rely on the following certainties:

- more than $1 billion in insurance to pay for on-site clean-up and possibly restoration of the power plant;
- insurance to pay for replacement power while the plant is out of service;
- the right to sue the manufacturer, component supplier or architect-engineer for all losses if fault can be established;
- a system of state regulation that has never allowed a utility to become insolvent since the Depression.

In contrast to the protection available to the utility, the public would face the following uncertainties:

- no insurance to cover their homes, businesses or other property;
- no legal right to recover from a manufacturer, architect-engineer or any other party who may have caused the accident -- regardless of negligence or fault;
- a pro-rated share of a $640 million compensation fund -- which at best is likely to compensate only a small fraction of actual losses;
- a vague promise that Congress will consider some action which may or may not prevent large numbers of businesses and individuals from facing bankruptcy.

It is difficult to imagine anyone seriously considering such a system "balanced". The very foundation of our economic system is the principle that excellence is rewarded; yet Price-Anderson tells the nuclear industry: "no matter how negligent, careless or reckless you are, you are not responsible for fully compensating damages you cause the public." The public, on the other hand, is sent the opposite message: "no matter what precautions you take to protect your health, home or business, it could be destroyed by someone else's carelessness and you have no legal right to full compensation." This is not sound public policy.

HOW IMPORTANT IS ACCOUNTABILITY?

Our organizations strongly believe that the limit on liability, and the "hold harmless" clause which insulates manufacturers, designers and all other participants in the nuclear industry from public liability, remove an important incentive for nuclear safety. We are not alone in drawing this conclusion. A full decade ago former AEC Commissioner William Kriegsman flatly stated: "Do away with it [the limit on liability] and you'd probably see nuclear valves coming off the assembly line in better shape."[4] In 1983 the Heritage Foundation called for elimination of the limit on liability and a greater reliance on free market mechanisms, such as private insurance, for assuring the safety of nuclear plants. Similarly, the National Taxpayers' Union testified before the House Interior Committee last year, arguing that the nuclear industry would be safer if subject to the traditional tests of the marketplace.

The nuclear industry stridently dismisses the possibility that there is any relationship between their performance and the limits on their liability. Industry representatives argue that one need only look at the finances of General Public Utilities after the relatively "minor" accident at Three Mile Island to realize how high the stakes already are. This is a reassuring argument for those who are not familiar with the day-to-day mishaps that plague this industry.

Just how well have the "lessons of TMI" been incorporated into the operating practices of this industry? Last summer's events at the Davis-Besse plant in Ohio are an all too vivid reminder that not every utility has fully incorporated the lessons of TMI into its operating practices. For nearly six years, the NRC and Toledo Edison knowingly allowed a hazardous condition to remain in the plant; it was not until an accident was narrowly averted that any enforcement action was taken. The series of failures at Davis-Besse were strikingly similar to the accident at Three Mile Island.

Industry representatives frequently point to the formation of the Institute for Nuclear Power Operations (INPO) as evidence that the industry is committed to standards of excellence in the operation of nuclear facilities. INPO was created by the nuclear industry after the Three Mile Island accident to supplement NRC regulation, and to serve as an internal "watchdog" of the industry's operations. Testifying on behalf of EEI, ANEC, and AIF, William Lee of Duke Power told a House Interior subcommitee last

June that he believed INPO has done an oustanding job of upgrading the quality of nuclear plants. The Davis-Besse incident shatters any confidence in the industry's ability to regulate itself and in the effectiveness of NRC's oversight. In spite of INPO's ostensible scrutiny, it is clear that little was done to upgrade the quality of Toledo Edison's operations.

The myriad of problems facing this industry have not escaped the attention of even its strongest advocates. To quote Energy Secretary Herrington at a nuclear industry forum earlier this year:

"There is no excuse for bad planning, for mismanagement, for shoddy construction. ...How many more times do we have to read stories like we read two weeks ago that 12 out of 17 licensed operators at one utility failed the NRC requalification exam, before the industry takes strong, dramatic steps at corrective action?"[5]

The public is asking the same question. How many more times do we have to read about utilities falsifying reports, operators failing and/or cheating on their exams, power plants built backwards or on foundations that sink, harassment of inspectors, improper welds, and the myriad of "operator errors" that have become so commonplace?

The list of mishaps and near misses for this industry is not a short one. If isolated, many of the events cited in NRC reports may not be all that significant; however the cumulative effect of these many "small" mistakes could be significant. As we saw at TMI, a series of failures in operator performance can play as critical a role in a nuclear accident as the failure of pumps and valves.

In February 1983 the Salem reactor failed to scram twice within three days, the most serious event since TMI. After the first failure, the utility (Public Service Electric & Gas) tried to put the plant back on line before discovering what had actually failed. The cause of the failure was inadequately lubricated reactor trip breakers. The breakers were not lubricated at all from 1974 to 1982 and were cleaned with the wrong solvent in early 1983. Westinghouse recommends lubrication every six months, however, reports indicate that Westinghouse never sent the manual on proper maintenance to PSG&E. As one NRC Commissioner described the incident: "At best, the failure reflects an intolerable degree of carelessness...."[6]

Although it may be impossible to directly link this "inattention to detail" to the limit on liability, it would not be prudent to dismiss totally the potential impact of full liability on the nuclear utilities' and vendors' performance. While the primary responsibility for regulating nuclear safety rests with the NRC, few federal regulations can be as compelling as full financial liability when it comes to day-to-day management decisions. Attached is a letter from a member of the NRC's technical staff urging Congress to substantially increase liability for accidents as a means for improving nuclear safety.

Furthermore, the potential role of the insurance industry in reducing nuclear risks is too often overlooked. Insurers have long played an important risk management role in our society, a role which other hazardous industries have benefited from. By providing financial incentives for good performance, rather than punitive fines for carelessness, the insurance industry could have a very constructive impact on nuclear safety. Unfortunately, it is very unlikely that insurers will be willing to play an active role in risk management unless they have more of their assets at stake. Today, the amount of liability insurance they offer for the entire nuclear industry is less than they wrote for Michael Jackson's "Victory Tour" concert series in 1984.[7]

Finally, insulation from public liability resulting from gross negligence and willful misconduct is unheard of for any other industry. Even the drafters of the original "Price-Anderson" legislation included the clause: "the Government shall have no obligation under the indemnity agreement for loss or damages caused by bad faith, willful misconduct or gross negligence..."[8]

If Congress' goal is to reduce the possibility of a nuclear accident, strong incentives for nuclear safety must be increased. The nuclear industry must be held accountable, not harmless for public damages caused by reckless behavior, carelessness and negligence.

HOW WELL DO THE PROPOSALS BEFORE THIS COMMITTEE ACHIEVE THE DUAL GOALS OF ACCOUNTABILITY AND COMPENSATION?

There are three Price-Anderson proposals before this Committee.[9] The following is a brief description of the principal features of each:

S. 1225, introduced by Senators Simpson and McClure increases the compensation fund to somewhere between $1.6 billion and $2.4 billion.[10] This is accomplished by increasing the post-accident assessments from $5 million to $10 to $15 million (subject to the discretion of the NRC) and authorizing a 1 mill per kilowatt hour fee on nuclear-generated electricity up to a maximum of $500 million. (The first layer of coverage continues to be a requirement to purchase the maximum amount of liability insurance, which is currently $160 million.) If damages exceed the amount provided by the three layers of coverage, the President is required to submit a plan to

Congress for providing additional compensation, and Congress is required to act on the President's plan in an expedited manner.

We strongly support two features of this bill. First is the principle of parity between accidents caused by federal nuclear activities and those caused by commercial accidents. We agree that this is an essential feature of any comprehensive Price-Anderson reform.

Second, we endorse the requirement that compensation for an accident resulting from the high-level nuclear waste program should be paid from the Nuclear Waste Fund. When the Nuclear Waste Policy Act was enacted, the Nuclear Waste Fund was intended to cover all of the costs of the nuclear waste program. Any costs incurred for public liability after arising from an accident involving high-level nuclear waste are certainly a cost of the program. To the extent that the DOE plans to comingle military waste with commercial spent fuel, the federal government will be responsible for a pro-rata contribution into the Nuclear Waste Fund.

The stated purpose of S. 1225 is to establish "an equitable, efficient, reliable and comprehensive system, in advance of any accident involving nuclear materials, which provides a mechanism for full compensation of the public in the event of such an accident...." Our organizations strongly support that goal. Unfortunately, S. 1225 fails to achieve its stated purpose. The goal of assuring full compensation for any accident is inconsistent with capping industry liability, unless the source of additional funds is clearly identified and a mechanism for assuring the availability of those funds is created.

The central flaw in S. 1225 is that it allows Congress to dodge the most difficult question: where will compensation beyond the limit come from? The concept of allowing Congress the flexibility to "tailor" a response depending upon the specific details of an accident may be appealing, but it is unrealistic. Supporters of S. 1225 have been very vague about the source of additional funds--suggesting that Congress may want to impose an additional tax on nuclear generated electricity, seek funds from other participants in the industry, or even take action against the specific utility or other party, if warranted. [11]

As Congress, and this Committee in particular, witnessed after the accident at Three Mile Island, assigning responsibility to pay for a nuclear accident after-the-fact is an exceedingly difficult task. Even if Congress overcame the political hurdle of approving a tax on nuclear energy or required some other participant in the industry to pay, the industry would probably challenge such a measure on constitutional grounds. S.1225 explicitly "holds harmless" those who are indemnified for public liability beyond the amounts required under the Act.[12]

Realistically, the only other source of funds for compensating damages beyond the limit is the Federal Treasury. In this time of rising deficits, Congress is well aware of the difficulties that would be encountered in trying to squeeze a few billion dollars out of the budget for the purpose of compensating the public. As we saw in the aftermath of the Texas City Disaster, Congressional compensation efforts are not always prompt or complete.

If the goal of this legislation is to create an efficient, equitable and reliable mechanism for compensating all damages from any accident, it is absolutely essential that Congress make the difficult decision about who will pay before an accident happens. The Price-Anderson Act is an unecessarily complex law, full of out-dated features and dependent upon a series of arbitrary tests and thresholds. Efforts to reform Price-Anderson should concentrate on establishing a simple, fair and predictable system for holding the industry accountable and compensating the public after an accident; S. 1225 goes in the opposite direction.

S. 445, introduced by Senator Gary Hart, retains the existing compensation pool, but removes the limit on liability for commercial power plant accidents. This bill establishes a floor rather than a ceiling for public compensation. Without an arbitrary limit on liability, the nuclear industry would be responsible for determining how much public liability insurance is prudent to carry.

If sufficient coverage is not available through the existing insurance pools, the utilities would utilize self-insurance mechanisms to cover their liability, much like they have for on-site property damage. Given a strong incentive to increase on-site property insurance after TMI, the utilities convinced the insurance pools to nearly double the amount of coverage they were willing to write. In addition, the utilties established a self-insurance program which brought the total coverage for on-site losses to over $1 billion.

Our organizations support this legislation because it establishes the important principle that those who create the risk will be fully responsible for damages to the public. Under S. 445, the level of liability coverage ultimately attained by the utilities is certain to be far greater than the $640 million currently required under Price-Anderson. More importantly, that amount would not be the limit on public compensation. The public would enjoy the same legal right to recovery that utilities currently have --- namely the right to sue a manufacturer, component supplier, or any other party who caused the accident.

While we support this approach over the present system, we acknowledge three shortcomings of this proposal. First, compensation beyond the first layer of insurance may be delayed while the courts determine liability. Second, the public may not be assured full compensation if damages exceed the amount of insurance combined with the assets of the responsible party, or parties. Third, this bill only addresses commercial power plant issues and does not cover nuclear waste or other federal nuclear contractors. For these reasons, we have urged Congress to incorporate a mechanism for assuring industry accountability into a more comprehensive proposal which assures full and timely compensation for any nuclear accident.

S. 1761, introduced by Chairman Stafford, is modeled after the NRC's 1983 Price-Anderson proposal. In the event of an accident causing damages in excess of the amount of private liability insurance ($160 million), each utility would be subject to a $10 to $15 million "retrospective premium" assessment. Utilities would only be responsible for paying this premium after an accident happened, and then only for as long as necessary to compensate all legally valid claims. Damages caused by an accident involving high-level nuclear waste would be fully compensated, out of the user-financed Nuclear Waste Fund.

Chairman Stafford has also introduced an amendment (Amendment 770) in conjunction with this bill, in an effort to make the program more equitable. The amendment would allow utilities to seek reimbursement for their retrospective premiums from any party that may be liable under normal tort law. This amendment corrects a serious flaw in the current Price-Anderson system. Under existing law, a utility that experiences an accident has the legal right to recover all of its damages from a manufacturer, supplier or other party if liability can be established. Under this arrangement, it is conceivable that the utility that has an accident could recover billions of dollars from another party, while non-involved utilities are required to pay retrospective premiums. (For example, after the TMI accident, GPU sued the reactor manufacturer, Babcock & Wilcox, for $4 billion, its entire losses in the accident.) This amendment places a greater financial burden on any party at fault, yet does not delay compensation to the public while the courts are determining liability. (This approach is similar to provisions in the Superfund law.)

Our organizations support this bill, with Amendment 770, because it comes closer to achieving the goals of compensation and accountability than any other proposal on the table.

S. 1761 is essentially a "super insurance" program. It is a bargain for utilities and their ratepayers because it does not impose any unnecessary costs on the industry. Equally important, it protects the federal taxpayers from becoming the insurers of this private industry by default.

In order to fully understand the economic efficiency of this program, it is useful to compare it with other nuclear insurance programs. Utilities currently pay approximately $5 million per plant in annual premiums for roughly $1 billion of on-site property insurance. These premiums are paid every year for as long as there is radioactive material on-site, regardless of whether there is an accident. Assuming that this insurance is necessary for at least 40 years (the length of the standard NRC license), and assuming no inflation, a utility would pay in the neighborhood of $200 million in exchange for $1 billion of coverage that may never be needed.

In contrast to the terms available under standard insurance arrangements, S. 1761 offers utilities a "super insurance" deal. With annual premiums set at $10 million per plant, close to $1 billion of "insurance" would be available every year for as many years as necessary. Furthermore, no premiums are paid unless there is an accident with serious off-site contamination, and then only for as long as necessary to compensate legally valid claims.

Finally, the amount of the retrospective premium under this program would not pose an unmanageable burden on any nuclear utility. According to the NRC, a $10 million annual premium represents approximately 2% of the annual costs of operating a new nuclear plant. According to NRC studies [13], most nuclear utilities could pay a premium several times greater than $10 million per plant, out of internal cash flow, without increasing electric rates.

In order to better understand how large of a burden this proposal would be on nuclear utilities, we calculated the impact of a $10 million per plant premium for 48 investor-owned utilities with nuclear plants. The attached tables indicate what a $10 million premium represents as a percentage of income available to pay common stock (assuming that state regulators prohibit pass-through of the premium to consumers) and as a percentage of income from through sales of electricity. As a reference point, the anticipated impact on utility rates of nuclear plants under construction on utility rates is also included. These tables were calculated using 1983 financial data. For utilities with nuclear plants under construction, we calculated the annual premium as if those plants were already licensed. (Once these plants are included in the company's ratebase, the actual impact of an annual retrospective premium assessment on rates and earnings is likely to be even lower than indicated in the table.)

As we mentioned earlier, S. 1761 is based on a proposal sent to Congress by the NRC in 1983. At that time, this proposal was unanimously endorsed by the five NRC Commissioners. Last summer it became clear that this proposal no longer had the unanimous backing of the NRC. For the record, it is important to note that this "change of heart" began last spring as a direct result of pressure from the nuclear industry. According to one Commissioner, the NRC's reconsideration of its recommendation began when representatives of a large nuclear utility visited each Commissioner and indicated that the industry would oppose extension of the Price-Anderson Act unless the Commission abandoned its 1983 recommendation. [14] We applaud Chairman Palladino and Commissioner Asselstine for continuing to stand behind the NRC's 1983 proposal, which was developed after extensive and thoughtful study of the issues.

In conclusion, we believe that Chairman Stafford's bill represents a responsible and balanced approach to Price-Anderson renewal. We have several specific recommendations for improving this bill, which are discussed later in this statement.

THE INDUSTRY POSITION: CONTRADICTING LOGIC

Representatives of the nuclear industry advance a variety of complex arguments in support of their position on Price-Anderson. They oppose S. 445, arguing that it is not fair to make nuclear plant owners individually liable for an accident, and that a "free market" solution would not assure enough protection for the public. At the same time, they oppose S. 1761, arguing that it is not fair to make the industry collectively responsible for compensating the public, and that this industry should not be singled out for such "unprecedented" treatment.

The only approach that nuclear industry representatives seem to consider "fair" is one which sets a $1 or $2 billion absolute cap on the industry's aggregate liability. The only bill which has attracted unqualified industry support is H.R. 51 (introduced by Rep. Price), which increases their entire liability exposure to roughly $1 billion, an amount equal to their own on-site property coverage. Industry representatives appear to be willing to "go along with" S. 1225, but thus far only with protests that it assesses them too much.

A close examination of the arguments behind the industry opposition to S. 1761 reveals an absence of logic.

First, they oppose the plan on the grounds that it imposes an unnecessary burden. They argue that even if an accident never happens, investors would perceive an increase in risk and thus impose an additional "risk premium" on nuclear investments. This argument contradicts other statements that have been made at previous Price-Anderson hearings. William Lee, the Chairman of Duke Power, stressed to a House Interior subcommittee last June that a utility experiencing a severe accident would probably face bankruptcy, even without exposure to public liability. If that is the case, one would assume that investors have already taken this into consideration when financing costs are established. For non-involved utilities, a contingent liability limited to a 2% increase in the annual operating costs of a nuclear plant is miniscule compared to the many other costs an uncertainties of building and operating a nuclear plant.

Second, they argue that it is unfair to make all utilities pay for another company's accident. Yet this is precisely what all utilities have agreed to do when they participate in the on-site property and replacement power insurance programs. These programs include both annual premiums and contingent retrospective premium adjustments. The utilities presumably believe these arrangements are "fair" because the terms of the programs have been agreed to in advance of an accident.

Third, they argue that subjecting manufacturers, suppliers and other potentially responsible parties would destroy the "delicate balance" in the Price-Anderson system. The argument that hundreds of small companies providing parts and services for the nuclear industry would get out of the nuclear business if exposed to public liability is not supportable. Despite the Price-Anderson Act's restriction on the public's ability to sue a nuclear supplier for damages, utilities themselves are allowed to file lawsuits which could bankrupt a manufacturer, supplier, or any other party found to be at fault.

After the accident at Three Mile Island, General Public Utilities filed a $4 billion lawsuit against Babcock & Wilcox for expenses incurred by the utility. Despite its vulnerability to similar lawsuits in the future, B&W continues to be an active supplier in the nuclear industry. As we have seen more recently, a manufacturer or architect-engineer need not even cause an accident to be sued for billions of dollars. Houston Lighting & Power, along with several other owners of the South Texas Project, sued Brown and Root for more than $6.3 billion. While the $750 million settlement reached last summer was termed a "disappointment" by the plaintiffs, it was larger than the entire industry's public liability for an accident.

Finally, industry representatives argue that S. 1761 is unacceptable because it is "open-ended." While stressing that bills which limit liability to $1 or $2 billion will somehow assure full compensation to the public, industry representatives object to the NRC plan on the grounds that it would impose an a "limitless" burden. We agree that it is impossible to predict in advance of an accident could cost. Yet if the goal of Price-Anderson legislation is to assure full compensation for all damages, then someone has to pay whatever compensation is needed beyond $1 or $2 billion. By supporting S. 1225, and other bills which set an absolute cap on industry liability, the nuclear industry appears to believe that it is fairer to impose this open-ended burden on either taxpayers or ratepayers.

This position is particularly illogical in light of the industry's new "source term" studies which predict that the consequences of nuclear accidents are likely to be much lower than previously assumed. The industry appears to have great confidence in these studies when arguing for reduced emergency planning zones and relaxation of other NRC regulations; they seem to abandon them when arguing for Price-Anderson renewal.

THE QUESTION OF BASIC FAIRNESS

At the heart of the Price-Anderson debate is the issue of "fairness." All sides agree that there should be full compensation, and all sides agree that the system should be "fair." Unfortunately, there is a wide divergence of views on what constitutes "fairness."

Our organizations believe that S.1761, with Amendment 770, is the fairest approach for four fundamental reasons.

1) Sufficient funds would be available to compensate all public damages. Victims would not be dependent on future Congressional action, and taxpayers would be protected from becoming the ultimate insurers of this private industry.

2) Each utility's exposure is manageable, predictable and limited on an annual basis. Unlike construction cost overruns, unanticipated operating expenses and the myriad of other unpredictable and potentially crippling costs, potential liability exposure would be both predictable and manageable. (Of course any company that causes an accident could be subject to greater liability if suits from contributing utilities were successful.)

3) It provides the benefits of full liability insurance without the normal costs. Unlike standard insurance, premiums are only paid after a loss occurs, and then only for as long as necessary to pay claims. As we discussed in the previous section, the economic efficiency of this program provides significant benefits to both utilities and their ratepayers.

4) It provides the benefits of traditional tort liability without all of the burdens. Compensation is not delayed by litigation establishing liability, yet those who contribute to the fund are allowed to recover their payments from plant designers, manufacturers, or others if fault is established.

Our organizations believe that S. 1225, and any other proposal which similarly sets an artificial and absolute cap on industry liability, is the least fair approach to Price-Anderson reform. S. 1225 has three primary flaws.

1) It fails to identify who will pay if an accident causes damages beyond the liability cap. Once the utilities are relieved of their "share," the only other place for the burden to fall is either the taxpayers or the victims. We believe it is more fair to require the industry to collectively shoulder this burden, than it is to shift these costs to victims or taxpayers.

2) Victims of an accident that exceeds the artificial liability limit are dependent on future, and uncertain, Congressional action before any compensation beyond the cap is available. The expedited Congressional procedure mandated in S. 1225 can require Congress to vote on a compensation plan, but it cannot guarantee that a plan providing full compensation will be approved.

3) Any company that causes an accident through recklessness, negligence, and even willful misconduct is "held harmless" for damages to the public. We believe that each participant in the nuclear industry should be held fully accountable for damages it causes.

Our organizations strongly believe that the most equitable and responsible approach to Price-Anderson renewal is to clearly identify who will pay for an accident, without arbitrary limits, in advance of an accident. S. 1761 does this, S. 1225 does not. There is no question that Congress will want to study the cause and extent of damages after a serious nuclear accident. If S. 1761 were in place, Congress could exercise its authority to intervene in the compensation program at any time. If Congressional action is delayed, or stalemated, victims would continue to receive compensation. The alternative, S. 1225, requires Congress to reach a very difficult consensus before any compensation beyond the limit can begin. We do not believe this is fair or responsible.

THE CHALLENGE:
ENACTING FAIR AND RESPONSIBLE LEGISLATION

Our organizations support S.1761 with Amendment 770, because it is a balanced and responsible approach to Price-Anderson renewal. In order to make this bill more comprehensive and more fair, we recommend four modifications.

1) Include a provision for advance borrowing authority. One potential problem of an annual assessment plan is that there may not be sufficient funds available to provide fair compensation durinf the first few years after an accident. The NRC, in conjunction with the court handling the claims, should be given the authority to borrow from the federal treasury, if necessary, to compensate claims on a timely basis. Any money borrowed should be paid back, with interest, as nuclear plant owners are assessed over the years.

2) Include an inflation index. The amount of the retrospective premiums should be adjusted on a regular basis to keep pace with inflation. S. 1761 allows the NRC, through a rulemaking, to increase the premium to $15 million if circumstances changed. As inflation decreases the value of money over time, the retrospective premium should be adjusted as well. This is particularly important if payment of public damage claims are spread out over several years.

3) Include a "deductible" provision. Instead of having industry-wide assessments begin after current liability insurance is exhausted ($160 million), nuclear plant owners should be required to cover the first few billion dollars of damages. Utilities could cover this layer through increased private insurance and/or self-insurance programs. This modification would put the nuclear industry on a more equal footing with other hazardous industries. Furthermore, it would make an annual assessment program more fair because premiums and terms for the initial layer of coverage would be set by the industry itself, much like their on-site property insurance arrangments. Finally, this modification would be an important step toward "privatizing" nuclear liability risks; the retrospective premium requirements would only be necessary for accidents of a magnitude greater than a private "market solution" could accommodate.

4) Include coverage for all DOE nuclear contractor accidents. In addition to the nuclear waste program, federal contractors at an estimated 280 sites around the country are covered under Price-Anderson indemnity agreements. Federal indemnity for these contractor activities should continue under Price-Anderson, but with no limit on public compensation. If a contractor causes an accident through negligence, the DOE should seek to recover from that contractor whatever federal compensation was paid.

In addition to these modifications, we support several other amendments to S. 1761. These amendments involve features of the Price-Anderson program covered in Section II of this statement; they include the ENO provisions, the statute of limitations, compensating latent injuries, transaction costs, coverage for acts of sabotage, payment of emergency response and precautionary evacuation costs. A description of each of these issues, and our recommendations for amendments follow.

PART II: THE OTHER ISSUES

In addition to the fundamental question of the limit on liability addressed in Part I, there are several other issues which Congress needs to address in a comprehensive reform of Price-Anderson. The following is a brief discussion of each of these issues.

DOE ACTIVITIES: The Limit on Liability Becomes A Roadblock

As we mentioned in Part I, DOE is insisting that the $500 million limit on liability which applies to federal contractors should cover the high-level nuclear waste program. States that have been chosen as candidates for the first repository have strongly opposed any limit on federal liability for high-level waste activities. Ironically, the Price-Anderson Act---which was enacted in order to remove a "roadblock" 30 years ago---has become a roadblock itself, threatening the success of cooperation agreements between the DOE and state governments and ultimately the success of the repository program itself.

The Price-Anderson limit on liability was originally enacted in 1957 for the primary purpose of encouraging private investment in commercial nuclear energy. There is no legal or politically supportable reason to arbitrarily limit the federal government's liability for its contractors' accidents.

DOE and its contractors argue that Price-Anderson coverage is essential for the continuation of many government contractor activities, including much of the defense system. It is interesting to note, however, that before the passage of the Price-Anderson Act in 1957, the Atomic Energy Commission had very similar indemnity agreements with many of the very same contractors. There were two essential differences between the pre-1957 indemnity agreements and the current Price-Anderson Act. First, these agreements covered all public liability without any arbitrary monetary limit. Second, they made the contractor responsible for public liability if an accident was caused by "gross negligence, willful misconduct or bad faith."[15]

RECOMMENDATION: DOE should be responsible for fully compensating all damages to the public resulting from its nuclear contractor activities. DOE should be allowed to indemnify its contractors against the risk of public liability. If an accident is caused by contractor negligence, DOE should seek to recover of the amount of compensation through legal action against the contractor. Compensation for accidents involving the transportation, storage or disposal of high-level nuclear waste should be paid out of the Nuclear Waste Fund, established by the Nuclear Waste Policy Act of 1982.

THE WAIVERS OF DEFENSES: Relatively Meaningless

The extraordinary nuclear occurrence (ENO) threshold and the "benefits" which the public derives from the waivers of defenses is probably the most misunderstood feature of the Price-Anderson Act. These "no-fault" provisions are often used by supporters of Price-Anderson to demonstrate the "public benefits" of the system. The implication is that the nuclear industry has agreed to give something up in exchange for the public accepting a limit on the industry's liability. A closer look at the ENO provisions shows that the industry has very generously given up something it is not likely to have in the first place.

After a nuclear accident, the NRC (or DOE) is required to determine whether the event was an "extraordinary nuclear occurrence." The criteria used by the NRC are totally arbitrary, requiring a specific amount of off-site injuries and property damage. After the accident at Three Mile Island, the process proved so cumbersome that it took the NRC a full year to conclude that the accident was not an ENO. (The NRC recently issued a proposed rule revising the ENO criteria.) For the purpose of "efficiency" the ENO determination is not reviewable by any court. The arbitrary ENO distinction implies that persons suffering from a less serious accident should have to meet tougher conditions in order to recover than victims of a more serious accident.

If an accident is not an ENO, any claims for compensation are subject to normal state tort law. In most states the common law renders persons engaging in ultra-hazardous activities to be subject to "strict liability," which means that those filing claims do not have to prove negligence; all they must prove is the cause and extent of their damages.

If an accident is an ENO, then the "no fault" provisions of Price-Anderson are triggered. These essentially function the same as a strict liability standard, and therefore are of relatively little value in any state that already applies a standard of strict liability for ultra-hazardous activities. The ENO provision also requires defendants to waive a number of other legal defenses, including the state statute of limitations. Most legal analysts conclude that, except for the statute of limitations, none of these defenses are likely to be available to a nuclear power plant operator after an accident.

When the NRC submitted its recommendations on Price-Anderson to Congress in 1983, two Commissioners recommended that the ENO be redefined to include any "nuclear incident." As defined in the Atomic Energy Act, a nuclear incident is any occurrence which causes bodily injury or property damage as a result of materials released from a nuclear facility. Expanding the definition of an ENO would allow claims to be judged on their individual merits, rather than by reference to the severity of the damages suffered by other parties. This change would help establish an expedited legal process and eliminate the possibility that persons suffering injuries in different states would face unequal legal obstacles.

Supporters of the ENO concept argue that broadening it to include all nuclear incidents would encourage "nuisance suits." No legal standard, whether strict liability or ordinary negligence, can prevent claims from being filed. Plaintiffs already face an enormous burden in proving the cause and extent of their damages. If claims of questionable merit are filed, the strict liability standard on its own will not result in unjustifed awards.

RECOMMENDATION: The ENO definition should be amended to include any event which is considered a "nuclear incident" as defined in the Atomic Energy Act.

THE STATUTE OF LIMITATIONS: Outdated and Inequitable

In the event of an ENO, the Price-Anderson statute of limitations recognizes claims filed within 3 years of discovery, but not longer than 20 years after the accident. The effect of this statute of limitations is to arbitrarily dismiss many claims for latent injuries. According to medical research, approximately 4 out of 5 radiation-induced illnesses would not become apparent until more than 20 years after exposure. [16]

The intent of this statute of limitations was to allow a longer period of time for filing claims than would be allowable under most state tort laws; the Price-Anderson statute of limitations only preempts those state statutes which are more restrictive. Since the last renewal of the Price-Anderson Act, many states have adopted "discovery rules" which require the discovery of an injury before the statute of limitations begins to run. At least 36 states have adopted discovery rules [17], most of which would allow claims beyond the 20 year Price-Anderson statute of limitations.

As a practical matter, the insurance industry is strongly opposed to any increase in the length of the Price-Anderson statute of limitations. The insurers argue that their foreign reinsurers are not accustomed to such long statutes of limitations and are likely to withdraw insurance capacity if the statute of limitations were extended. This argument misses two critical points. First, as mentioned above, the effective statute of limitations in most jurisdictions is likely to be more than twenty years. Second, any accident which causes serious enough off-site damage to warrant concern about latent injuries is likely to cause more than $160 million in early damages. Since the insurers cover the "first dollar" of loss, they should expect to pay all of their $160 million in coverage very shortly after the event. Persons filing claims for latent injuries are likely to have an extremely difficult, if not impossible, task in proving the causal link between the accident and their injury. It is highly unlikely that awards for latent injuries will be successful if the immediate damages from the accident were less than $160 million.

RECOMMENDATION: The statute of limitations should assure fair and uniform treatment of latent injuries. A discovery rule, recognizing claims that are filed within 5 years after the discovery of the injury and the cause of action, should be substituted for the current 20-year statute of limitations.

COSTS OF INVESTIGATING, DEFENDING AND SETTLING CLAIMS: Encouraging Excessive Legal Costs

One of the most pervasive myths about Price-Anderson is that claims will be paid immediately after an ENO, without the usual legal hassle. While there is no doubt that the waivers of defenses will reduce legal expenses and time in court, the fact that all parties will probably need lawyers to go through the process is often overlooked. Even with the "no fault" system, claims filed by the public are likely to be challenged by lawyers hired by the insurance pools -- a process which will certainly be costly. (For example, a person who lost the use of a farm may find that the insurance pools do not agree with him on the value of his land and inventory; the industry lawyers would be expected to challenge the amount of the claim and offer a settlement.) One of the most egregious loopholes in the system is that it allows all of the costs incurred by the lawyers representing the insurance pools' interest to be paid out of the "public compensation" fund.

When Congress renewed the Price-Anderson Act in 1975 an amendment prohibiting the costs of investigating, defending and settling claims from being paid out of the "public compensation" fund was adopted. Because of a drafting error the exclusion of these expenses only applied to the portion of compensation provided directly by the federal government. Now that the direct federal indemnity share has been phased out, these costs can be deducted from whatever funds exist in the post-accident compensation pool.

Because this loophole pays the industry lawyers out of the public compensation pool, they will have no incentive to limit legal costs; in fact they will have good reason to resist claims and delay settlement. These legal expenses could substantially reduce the amount of compensation available to the public. Although it is impossible to predict ahead of time just how high these costs might be, the response of the insurance industry is very revealing. Unlike standard insurance policies which pay for all costs of investigating, defending and settling claims in addition to the policy limits, the nuclear insurance pools have insisted writing policies for nuclear risks which include all of these costs within the policy limits.

RECOMMENDATION: Prohibit these costs from coming out of any public compensation fund, including the liability insurance provided by the nuclear insurance pool and any funds generated from post-accident assessments of utilities.

COMPENSATING LATENT INJURIES: Assuring Adequate Funds Over A Long Term

The difficult problem of developing a fair system for compensating latent injuries is shared by many hazardous industries. When there is a limited amount of money to compensate all immediate and long-term injuries, the problem is compounded. The current Price-Anderson Act requires the federal judge administering the compensation fund to set aside an unspecified portion of money to compensate late-arising claims. As was pointed out in the discussion above, the 20-year statute may effectively preclude many otherwise valid claims. A less restrictive discovery rule is likely to run into the problem of an exhausted compensation fund.

There are two fundamental challenges. First, assuring adequate compensation funds over several decades. Second, establishing a system which fairly compensates people for injuries for which there is a difficult burden of proof.

The first challenge is most appropriately solved through the NRC's annual assessment proposal. Any compensation system which begins with a strictly limited pool is likely to either undercompensate immadiate victims because funds are reserved for future injuries, or vice versa. If a system of annual assessments were adopted, there would be an assured source of funds to compensate claims well into the future if needed, yet large amounts of money would not necessarily need to be reserved for that purpose.

The second challenge is more difficult. Courts and policy makers around the country are grappling with this in cases involving people exposed to radiation from nuclear weapons tests and workers exposed to asbestos. Persons suffering injuries face an almost insurmountable burden in proving the causal relationship between their illness and their exposure to a particular chemical, toxic agent or event.

RECOMMENDATION: This is an enormously difficult problem which is made even more difficult with an absolute cap on public compensation funds. Congress should appoint an independent study commission to examine this problem as it relates to nuclear accident victims and evaluate options that are being used for other hazards. This commission should be required to submit a report to Congress recommending the approaches, if any, that should be incorporated into the Price-Anderson Act.

SABOTAGE: Ending The Ambiguity

The Price-Anderson Act covers accidents to the public resulting from sabotage, as long as the release of radiation takes place either at the facility site or along a planned course of transportation. If material is diverted away from the site, or planned transportation route, it is not clear whether Price-Anderson coverage would apply. It is essential that the owners and operators of nuclear facilities take every conceivable precaution to prevent sabotage. This was an issue which was debated at length during the 1975 renewal of Price-Anderson. An amendment closing the gaps in coverage passed the Senate but was dropped by the Conference Committee. Thus, the issue remains unresolved.

RECOMMENDATION: Any damage to the public caused by the release of nuclear materials should be compensated in full under Price-Anderson. If the material can be traced to a specific facility, the owner/operator of that facility should be strictly liable for all damages to the public. If the material cannot be traced to a specific source, the federal government should compensate all public damages.

PRECAUTIONARY EVACUATION: Covering All Expenses

In the event of an accident where a release of radiation is anticipated but does not actually occur, the costs of a precautionary evacuation could be quite significant. Coverage under the Price-Anderson Act is not triggered if there is no actual release of radiation. Any costs incurred by members of the public during a precautionary evacuation are not specifically covered under Price-Anderson. If the evacuation were triggered by an event at a commercial nuclear facility, the liability insurance coverage provided by the nuclear insurance pools would probably cover these costs. If the evacuation were triggered by an event at a DOE facility, or as a result of an accident involving a DOE shipment of nuclear materials, the costs would not be covered under the current Act.

RECOMMENDATION: Any costs incurred by the public resulting from a precautionary evacuation should be explicitly covered by the Price-Anderson Act.

EMERGENCY RESPONSE COSTS: An Unfair Burden For States

The costs incurred by state and local governments in providing emergency response services during a nuclear accident are not specifically covered under the Price-Anderson Act. These costs could represent a significant financial burden on a state or local government.

RECOMMENDATION: Emergency response costs incurred by state and/or local governments should be fully reimbursed under the Price-Anderson system.

NOTES:

1. Government Accounting Office Report: "Congress Should Increase Financial Protection To The Public From Accidents At DOE Nuclear Operations," September 14, 1981.

2. Five states are being considered for the first repository: Washington, Nevada, Texas, Utah, Mississippi and Louisiana. Seventeen states are being considered for the second repository: Connecticut, Georgia, Maine, Maryland, Massachusetts, Minnesota, Michigan, New Hampshire, New Jersey, New York, North Carolina, Pennsylvania, Rhode Island, South Carolina, Vermont, Virginia and Wisconsin.

3. In August 1983 a draft of NUREG-0957 (the NRC Report on Price-Anderson) was circulated widely. The draft report contained a section on nuclear safety which summarized previous studies of accident probabilities and consequences. The estimate of $10 billion for a mean accident at Indian Point was cited on page C-7 of that draft. Press reports at the time indicated that representatives of the nuclear industry were displeased with the discussion of accident consequences. When the final report was approved by the NRC Commissioners, the section on nuclear safety had been dropped.

4. "Nuclear Power: Hard Times and a Questioning Congress," Science, vol.187, March 21, 1975, p.1060.

5. Energy Daily, May 9, 1985, p.1.

6. Inside NRC, March 7 and 21, 1983.

7. Michael Jackson's 1984 "Victory Tour" concert series was insured for approximately $250 million. Business Insurance, July 16, 1984.

8. Hearings of the Joint Committee on Atomic Energy on Government Indemnity for Private Licensees and AEC Contractors Against Reactor Hazards (May 15, 16, 17, 18, 21 and June 14, 1956), p.44.

9. Four bills have been introduced in the House: H.R. 51, introduced by Rep. Mel Price (D-IL), H.R. 445, introduced by Rep. John Seiberling (D-OH), H.R. 2524, introduced by Rep. Sid Morrison (D-WA), H.R. 2665, introduced by Rep. Ted Weiss (D-NY).

10. The assured aggregate limit on industry liability under this bill would range from $1.6 billion to roughly $2.4 billion. The $1.6 billion estimate assumes a $10 million assessment of the 94 nuclear plants currently licensed. The $2.4 billion estimate assumes 115 nuclear plants at a $15 million assessment.

11. Remarks made by James Curtiss, Majority Counsel, SubcommOttee on Nuclear Regulation of the Senate Environment and Public WorkO Committee, before the Energy and Environment Committee of the National Oovernors Association, Chicago, Illinois, May 13, 1985.

12. S. 1225, page 5, lines 1-3 and page 7, lines 10-11 and page 12, lines 18-22, the liability of the licensees is explicitly limited.

13. "Additional Information on Retrospective Nuclear Liability Insurance Proposed by NRC," Office of State Programs, U.S. Nuclear Regulatory Commission, April, 1985.

14. [Prepared] Statement of James K. Asselstine, Commissioner, U.S. Nuclear Regulatory Commission, before the Subcommittee on Energy and the Environment, House Committee on Interior and Insular Affairs, June 4, 1985.

15. Hearings of the Joint Committee (see #8 above), pp. 76-85.

16. Advisory Committee on the Biological Effects of Ionizing Radiations, National Academy of Sciences/National Research Council, 1972 (commonly known as the BEIR Report), as cited by Daniel W. Meek in "Nuclear Power and the Price-Anderson Act: Promotion over Public Protection," *Stanford Law Review*, January 1978, p. 416.

17. *Injuries and Damages from Hazardous Wastes*--A Report to Congress in Compliance with Section 301(e) of CERCLA, September 1982, Part 2, pp. 13-78 and *Superfund 301(e) Study--Update*, Congressional Research Service, April 15, 1985. As cited in "Fact Sheet: Statutes of Limitations for Toxic Torts," by Janet Hathaway, Staff Attorney, Public Citizen's Congress Watch, Washington, D.C.

ATTACHMENT I

THE NEW YORK TIMES, WEDNESDAY, MAY 22, 1985

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N.R.C. Underestimates

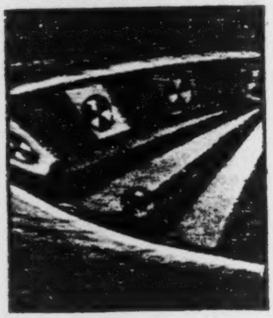
To the Editor:

The chances for a nuclear meltdown in the next 20 years are underestimated by the Nuclear Regulatory Commission. The 50-50 estimate you speak of is a shot in the dark all right, but it is optimistically biased. Estimates of substantially lower risks being advanced by nuclear-industry spokesmen are simply cavalier quantifications of wishful thinking.

You are correct: the uncertainties in probability estimates of accidents with long chains of events are very large. Such estimates may be off by at least a factor of 10. So comparing 1 in 10,000 to 3 in 10,000 is not very meaningful. The 50-50 chance of a meltdown over the next 20 years may very well be attributed to just 17 or so plants with embrittled reactor pressure vessels, which may rupture under pressurized thermal shock. Such a shock may be initiated and sustained by a variety of failures, notably of nonsafety-grade control systems. Pressurized thermal shock transients have taken place, but luckily, in new plants with vessels not embrittled. Furthermore, in case of a catastrophic vessel rupture, and subsequent core meltdown, a large containment building will most likely also fail. They are not designed to accommodate such accidents.

The Nuclear Regulatory Commission should not write this issue off on the basis of a proposed rule pending before it. This rule is an amalgam of N.R.C. staff's preconceived notion, industry pressures, bad advice from the commission's advisory committee and wishful thinking. This is the stuff that accidents like Three Mile Island are made of. The commission should establish an ad hoc panel of experts with membership from outside the agency and the nuclear community to assess this serious, multidisciplinary problem thoroughly and independently. It is a technical problem, and it should be resolved with the best possible technical judgments and advice the commission can possibly muster.

The laws of physics are not subject to change by wishful thinking, rule making or legislation. If we are to achieve and maintain an acceptable level of nuclear safety, it is important that the majority of the members of Congress face the technical realities of nuclear power and rely less on special interests seeking to enhance their near-term cash flow at the expense of public health and safety.



As Congress considers legislation to reform the nuclear-regulatory system, it should first construct a pragmatic system of incentives for safety for nuclear utilities, including increased penalties for safety violations and substantially increased liability for accidents. Only then, it should consider reducing overprescriptive kinds of regulations. This is in concert with recommendations contained in a 1983 report on nuclear-safety regulation published by the American Enterprise Institute for Public Policy Research. Time is of the essence, and is not working in our favor.

DEMETRIOS L. BASDEKAS

Rockville, Md., May 11, 1985

The writer is on the Nuclear Regulatory Commission's technical staff.

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(ATTACHMENT #2)

TABLE I:

ESTIMATED IMPACT OF $10 MILLION PER PLANT ASSESSMENTS ON INVESTOR-OWNED UTILITIES
(Based on 1983 Financial Data)

UTILITY	ASSUMED ANNUAL ASSESSMENTS (in millions)	PERCENTAGE OF INCOME AVAILABLE TO PAY COMMON STOCK (1983)	PERCENTAGE OF ANNUAL (1983) INCOME FROM RATEPAYERS	ANTICIPATED RATE IMPACT OF REACTORS NOW UNDER CONSTRUCTION
ALABAMA				
Alabama Power	$ 20	8.7%	1.1%	
ARIZONA				
Arizona PS	$ 8.7	3.9%	1.0%	56%
ARKANSAS				
Arkansas P&L[a]	$ 20	19.6%	1.7%	
CALIFORNIA				
So.Cal.Ed.	$ 27.7	4.5%	.63%	6%
Pacific G & E	$ 20	3.2%	.51%	25%
COLORADO				
P.S. of Co.	$ 10	11.1%	1.8%	
CONNECTICUT				
Connecticut L & P	$ 28.2	14.3%	2.1%	29%[b]
FLORIDA				
Florida P & L	$ 38.5	14.4%	1.1%	
GEORGIA				
Georgia Power	$ 20	6.6%	.73%	11%
ILLINOIS				
Commonwealth Ed	$125[c]	18%	2.7%	32%
Illinois Power	$ 8	4.3%	1.0%	58%

INDIANA				
Indiana & Michigan	$ 20	17.9%	2.3%	
IOWA				
Iowa Electric	$ 7	30%	2.5%	
KANSAS				
Kansas G & E	$ 4.7	5.1%	1.2%	62%
LOUISIANA				
Louisiana P & L	$ 13.9	16%	1.2%	38%[d]
MAINE				
Central Maine Power	$ 4.7	10.5%	1%	14%[d]
MARYLAND				
Baltimore G & E	$ 20	10.6%	1.8%	
MASSACHUSETTS				
Boston Edison Co.	$ 1.9	3.5%	.18%	
MICHIGAN				
Consumers Power	$ 20	8.1%	1.3%	
Indiana & Michigan	$ 20	18%	2.3%	
MINNESOTA				
Northern States	$ 30	17.6%	2.3%	
NEW HAMPSHIRE				
PS of New Hampshire	$ 5.9	5%	1.3%	67%
NEW JERSEY				
Jersey Central	$ 15	33.5%	1.2%	
Public Service E&G	$ 26.5	8%	1.03%	25%
NEW MEXICO				
PS of New Mexico	$ 3	2.6%	.77%	42%
NEW YORK				
Con Ed[d]	$ 10	1.9%	.2%	
LILCO	$ 11.8	4.1%	.82%	65%
Niagara Mohawk	$ 14.1	5.2%	.7%	19%
Rochester G & E	$ 11.4	15.1%	2.5%	28%
NORTH CAROLINA				
Duke Power	$ 55	14.9%	2.3%	15%[d]
Carolina P&L	$ 34.7	17.8%	2.1%	28%

MISSISSIPPI				
Miss. P&L	$ 3.3	9.4%	.63%	20%[b]
MISSOURI				
Kansas City P&L	$ 4.7	4.5%	.85%	44%
Union Electric	$ 10	4.3%	.78%	42%
OHIO				
Cleveland Electric	$ 10.7	5.2%	.9%	31%[d]
Toledo Edison	$ 8.9	9%	1.8%	53%[d]
Ohio Edison	$ 10.7	4.7%	.71%	31%[d]
OREGON				
Portland Gen.Elec.	$ 6.8	8.5%	1.25%	
PENNSYLVANIA				
Met Ed	$ 10	--[e]	1.8%	
Penn P&L	$ 18	8.6%	1.4%	29%
Philadelphia Elec.	$ 27	8.4%	1.3%	33%
Duquesne	$ 7.5	6.1%	.9%	23%[d]
Penn. Elec. Co.	$ 5	17.5%	.78%	
SOUTH CAROLINA				
Duke Power	$ 55	14.9%	2.3%	15%
Carolina P&L	$ 34.7	17.8%	2.1%	28%
TEXAS				
Texas Util.Elec.	$ 17.6	3.8%	.5%	18%
Houston Industries	$ 6.2	2%	.17%	12%
El Paso	$ 4.7	6%	1.6%	89%
VERMONT				
Central Vermont PS	$ 4.2	26.2%	2.9%	
VIRGINIA				
Dominion Resources	$ 30	11.3%	1.2%	
WISCONSIN				
Wisconsin Elec	$ 20	14.8%	1.9%	

Notes:

Data compiled from The P.U.R. Analysis of Investor-Owned Electric and Gas Utilities, 1984 Edition, published by Public Utilities Reports, Inc.

And "Nuclear Power Plants in the United States, Atomic Industrial Forum, 1984. The assumptions regarding powerplant ownership used in this chart are detailed in Table II.

The impact of plants under construction on utility rates was compiled from "Nuclear Follies," Forbes, February 11, 1985.

a. Assumes no ownership of Grand Gulf.
b. Rate impact cited is the impact on the parent utility.
c. Assumes that Dresden 1, which has been shutdown since 1978, would be assessed.
d. Rate impact reflects more than one nuclear plant under construction.
e. Since the accident at Three Mile Island, earnings on common stock for Metropolitan Edison have not been large enough to pay a $10 million/plant assessment. Although TMI Unit II is not expected to operate in the future, it is still a licensed nuclear plant and would be subject to any post-accident assessment.

TABLE II:

OWNERSHIP OF NUCLEAR PLANTS BY INVESTOR-OWNED UTILITIES

(an asterisk indicates plants under construction)

ALABAMA
Alabama Power Co
Farley 1,2 (860 mwe)

ARIZONA
Arizona Public Service
29.1% of Palo Verde 1*,2*,3* (1270 mwe)

ARKANSAS
Arkansas Power & Light
Arkansas Nuclear 1 (850 mwe); 2 (912 mwe)

CALIFORNIA
Southern California Edison
80% of San Onofre 1 (436 mwe)
75% of San Onofre 2,3 (1100 mwe)
15.8% of Palo Verde 1*,2*,3* (1270 mwe)

Pacific Gas & Electric
Diablo Canyon 1 (1084 mwe); 2 (1106 mwe)

COLORADO
Public Service Co of Colorado
Fort St. Vrain (330 mwe)

CONNECTICUT
Connecticut Light & Power
34.5% of Haddam Neck (582 mwe)
81% of Millstone 1 (660 mwe); 2 (869 mwe)
52.6% of Millstone 3* (1150 mwe)
15% of Yankee Rowe (175 mwe)
8% of Maine Yankee (825 mwe)
6% of Vermont Yankee (514 mwe)
4% of Seabrook 1 (1150 mwe)

FLORIDA
Florida Power & Light
St. Lucie 1 (822 mwe)
85.1% of St. Lucie 2 (786 mwe)
Turkey Point 3,4 (666 mwe)

GEORGIA
Georgia Power Co.
50.1% of Hatch 1 (786 mwe); 2 (790 mwe)
50.7% of Vogtle 1*,2* (1100 mwe)

ILLINOIS
Commonwealth Edison
Dresden 1 (207 mwe) (shutdown)
Dresden 2,3 (794 mwe)
Zion 1,2 (1040 mwe)
75% of Quad Cities 1,2 (789 mwe)
LaSalle 1,2 (1078 mwe)
Byron 1,2* (1120 mwe)
Braidwood 1*,2* (1120 mwe)

Illinois Power
80% of Clinton (933 mwe)

INDIANA
Indiana & Michigan Electric
Donald Cook 1 (1030 mwe); 2 (1100 mwe)

IOWA
Iowa Electric & Power Co.
Duane Arnold (583 mwe)

KANSAS
Kansas Gas & Electric
47% of Wolf Creek (1150 mwe)

Kansas City Power & Light
47% of Wolf Creek (1150 mwe)

LOUISIANA
Louisiana Power & Light
Waterford 3 (1104 mwe)
38.5% of Grand Gulf 1 (1125 mwe)

MAINE
Central Maine Power
38% of Maine Yankee (825 mwe)
6% of Seabrook 1* (1150 mwe)
2.5% of Millstone 3* (1150 mwe)

MARYLAND
Baltimore Gas & Electric
Calvert Cliffs 1,2 (845 mwe)

MASSACHUSETTS
Boston Edison
Pilgrim 1 (670 mwe)
9.5% of Yankee Rowe (175 mwe)
9.5% of Haddam Neck (582 mwe)

MICHIGAN
Consumers Power
Big Rock Point (63 mwe)
Palisades (757 mwe)

Indiana & Michigan Electric
Cook 1 (1030 mwe), 2 (1100 mwe)

MINNESOTA
Northern States Power
Monticello (545 mwe)
Prairie Island 1,2 (530 mwe)

MISSISSIPPI
Mississippi Power & Light
33% of Grand Gulf 1* (1250 mwe)

MISSOURI
Kansas City Power & Light
47% of Wolf Creek (1150 mwe)

Union Electric
Callaway (1150 mwe)

NEW JERSEY
Jersey Central Power & Light
Oyster Creek (650 mwe)
25% of TMI 1 (819 mwe), 2 (906 mwe)

Public Service Electric & Gas
42.6% of Salem 1 (1090 mwe), 2 (1115 mwe)
42.5% of Peach Bottom 2,3 (1065 mwe)
95% of Hope Creek (1067 mwe)

NEW HAMPSHIRE

Public Service of New Hampshire
35.6 of Seabrook 1* (1150 mwe)
2.8% of Millstone 3* (1150 mwe)
5% of Haddam Neck (582 mwe)
5% of Maine Yankee (825mwe)
7% of Yankee Rowe (175 mwe)
4% of Vermont Yankee (514mwe)

NEW MEXICO

Public Service of New Mexico
10.2% of Palo Verde 1,2,3 (1270 mwe)

NEW YORK

Con Ed
Indian Point 2 (873 mwe)

LILCO
Shoreham* (846 mwe)
18% of Nine Mile Point 2* (1084 mwe)

Niagara Mohawk
Nine Mile 1 (620 mwe)
41% of Nine Mile Point 2* (1080 mwe)

Rochester Gas & Electric
R.E. Ginna (470 mwe)
14% of Nine Mile Point 2* (1080 mwe)

NORTH CAROLINA

Duke Power
McGuire 1,2* (1180 mwe)
Oconee 1,2,3 (860 mwe)
25% of Catawba 1*,2* (1145 mwe)

Carolina Power & Light
81.7% of Brunswick 1,2 (790 mwe)
83.8% of Shearon Harris 1* (900 mwe)
Robinson 2 (665 mwe)

OHIO
Cleveland Electric
51.4% of Davis Besse (890 mwe)
31% of Perry 1* (1205 mwe)
25% of Beaver Valley 2* (833 mwe)

Ohio Edison
35% of Beaver Valley 1 (833 mwe)
41.9% of Beaver Valley 2* (836 mwe)
30% of Perry 1* (1205 mwe)

Toledo Edison
48.6% of Davis-Besse 1 (890 mwe)
20% of Perry 1* (1205 mwe)
20% of Beaver Valley 2* (836 mwe)

OREGON
Portland General Electric
67.5% of Trojan (1130 mwe)

PENNSYLVANIA
Pennsylvania Power & Light
90% of Susquehanna 1, 2 (1050 mwe)

Philadelphia Electric Company
Limerick 1* (1055 mwe)
42.5% of Peach Bottom 2,3 (1065 mwe)
42.6% of Salem 1 (1090 mwe) 2 (1115 mwe)

Metropolitan Edison
50% of TMI 1 (819 mwe) 2 (906 mwe)

Pennsylvania Electric Company
25% of TMI 1 (819 mwe) 2 (906 mwe)

Duquesne Light Company
47.5% of Beaver Valley 1 (833 mwe)
13.7% of Beaver Valley 2* (836 mwe)
13.7% of Perry 1* (1205 mwe)

SOUTH CAROLINA
Carolina Power & Light
Robinson 2 (665 mwe)
83.8% of Shearon Harris (900 mwe)
81.7% of Brunswick 1,2 (790 mwe)

Duke Power
McGuire 1,2* (1180 mwe)
Oconne 1,2,3 (860 mwe)
25% of Catawba 1, 2 (1145 mwe)

TEXAS
Texas Utilities
88% of Comanche Peak 1*,2* (1150 mwe)

Houston Lighting & Power
31% of South Texas 1*,2* (1250 mwe)

El Paso Electric Company
15.8% of Palo Verde 1*, 2*, 3* (1270 mwe)

VERMONT
Central Vermont Public Service
31.3% of Vermont Yankee (514 mwe)
3.5% of Yankee Rowe (175 mwe)
2% of Maine Yankee (825 mwe)
2% of Haddam Neck (582 mwe)
1.5% of Seabrook 1* (1150 mwe)
1.7% of Millstone 3* (1150 mwe)

VIRGINIA
Dominion Resources (formerly VEPCO)
Surry 1,2 (775 mwe)
North Anna 1 (877 mwe) 2 (890 mwe)

WISCONSIN
Wisconsin Electric Power
Point Beach 1,2 (497 mwe)

Sources: The P.U.R. Analysis of Investor-Owned Electric and Gas Utilities, 1984 Edition, Published by Public Utilities Reports, Inc.

"Nuclear Power Plants in the United States", Atomic Industrial Forum, 1984.

STATEMENT OF
AMERICAN NUCLEAR INSURERS
MUTUAL ATOMIC ENERGY LIABILITY UNDERWRITERS
NATIONAL ASSOCIATION OF INDEPENDENT INSURERS
ALLIANCE OF AMERICAN INSURERS
AMERICAN INSURANCE ASSOCIATION

BEFORE

THE SUBCOMMITTEE ON NUCLEAR REGULATION
OF THE
COMMITTEE ON ENVIRONMENT AND PUBLIC WORKS
UNITED STATES SENATE

October 23, 1985

I am Richard Schmalz, Counsel to American Nuclear Insurers and Mutual Atomic Energy Liability Underwriters, the two Nuclear Pools known as ANI and MAELU. My associates today are Joseph Marrone, Vice President and General Counsel of American Nuclear Insurers and J. Michael O'Connell, Manager of Mutual Atomic Energy Liability Underwriters.

While we appear today on behalf of the Nuclear Pools, the National Association of Independent Insurers, the Alliance of American Insurers and the American Insurance Association also join in our statement. The total membership of these organizations includes over 800 insurance companies, with virtually all of the major companies represented.

We appreciate your invitation to present our views on nuclear power, with special focus on the Price-Anderson program, its financial protection requirements, and private insurance support.

We will not debate the pros of maintaining a nuclear power option. The Pools are not advocates. But in the main, there seems to be only one serious special risk. There is an exceedingly remote possibility of an accident which could cause substantial off-site bodily injuries and property damage. No one can predict the extent of such injuries or damage or what it might cost to compensate them under our ordinary tort liability system.

This presents a fundamental policy question as well as a most difficult insurance problem for the private market, but it does not warrant the conclusion that we should abandon nuclear power. Rather than such an extreme step, it suggests that a nuclear power program will always require special treatment. This is true whether the task is delegated to private sources or carried out by government.

In our view, certain key elements are vital for a healthy private nuclear power program -- one that can be carried out safely, that encourages insurance availability, and that will attract the most insurance capacity from world markets at reasonable cost.

First, there must be a consensus that we, as a nation, want to develop nuclear power by private means. This is an important morale factor, which is hard to quantify yet nevertheless real.

Second, the program must have the strong support of government to protect both the public and private industry from the special risk of nuclear power. This support must include strong safety regulation, reasonable financial protection standards and a reasonable limitation on private liabilities.

We cannot entrust the safe development of nuclear power to a laissez-faire energy market. But on the other hand, once our national government chooses the course of close and detailed regulation, it becomes a partner in the outcome.

The case for such a course rests in large part on the realization that there are economic and social advantages to the nation as a whole from a sound nuclear power program. The benefits are not confined solely to local rate payers and the owners of public utilities. Thus at some point our national government ought to assume some financial stake or provide some financial support.

As insurers, we are concerned about the bad effect on morale and safety that may result from a policy which deals with the special risk of nuclear power by placing a cumulation of heavier financial burdens on the nuclear power industry.

The assumption that imposing unlimited liability, or substantially increased financial burdens, will automatically make nuclear power plants safer or provide the public with more financial protection is not sound. It may have just the opposite effect.

And it seems to be inconsistent with fundamental fairness to require special measures, licensing requirements and financial protection standards, which all impose substantial non-market costs, without balancing them with some compensating relief.

There is no other industry where 95 members are required to provide compensation for an accident at the 96th, nor where this 96th member is required to assume exclusive and virtually absolute liability for damages arising in connection with its plant. This would certainly not happen under ordinary rules of law or free market principles.

Yet these unique rules can operate fairly and assure the public of reasonable financial protection in cases where there clearly would be far less compensation -- or no compensation at all -- precisely because of the Price-Anderson Act, and the fundamental soundness of its balancing principle.

Price-Anderson recognizes the special risk of nuclear power and imposes special obligations on the nuclear industry to protect the public. But in return, it limits liability to a reasonable amount, with the expectation that government will undertake supplementary relief measures in the extremely unlikely event that they become necessary.

Although one can argue about where the balance point ought to be, the concept of reasonable balance is sound, and consistent with fundamental fairness and good economic theory. This is such an important point that the Pools commissioned a study by professional economists at Arthur D. Little, Inc. to probe the economic foundations of the limitation on liability. We will be pleased to make copies available to the Committee.

The question arises quite naturally why the Pools and private insurers generally are so concerned about the limitation on liability. Their interest is of course secondary to that of the nuclear power industry itself, with its much greater financial stake. We, therefore, look to the nuclear power industry to undertake the major discussion of proposals to raise the limitation on liability or remove it entirely.

There are, however, certain related factors that have a direct bearing on the amount of insurance that private insurers are able to supply, not just for the special risks associated with our nuclear power plants, but also for the vastly greater number of conventional risks located in their vicinity.

The role of the Pools in providing property insurance to the nuclear power plant operators is well known. By drawing on professional reinsurers throughout the world the Pools now make $585 million available to protect plant investment for owners and rate payers. At the same time, the members of the Pools, and other private insurers and reinsurers around the world, supply conventional insurance freely to other risks located in the vicinity of nuclear power plants.

What is not so well understood is that private insurers, faced with the catastrophe risk of nuclear power, even though remote, can maintain open markets without fear of adverse selection or of cumulating excessive potential liabilities only because of the Price-Anderson system. Price-Anderson channels all liability to the operators of nuclear power plants, places an absolute ceiling on such liability at a reasonable amount and pledges supplementary government financial assistance in the remotely possible case that the privately furnished financial protection proves to be insufficient.

The Pools must accordingly advise this Committee that, in their judgment, channelling liability coupled with a reasonable absolute limitation on liability is essential to maintaining maximum availability and affordability of private insurance, as we indicated, not only for nuclear power plants, but also for conventional risks located in their vicinity. This view is held by virtually all United States insurers and their sources of reinsurance. The Pools alone receive over one half of their total capacity from foreign reinsurers.

Our stress on the need for channelling and an absolute limitation on liability is not new. From the very beginning they have served as the foundation of a workable private insurance program. But they take on added significance today as we continue to witness world insurance markets retreat before an uncontrollable expansion in the costs of compensating tort liabilities in the United States.

The Price-Anderson system is not unique. Most, if not all of the free economies around the world that are developing nuclear power have adopted both channelling and limiting liability for nuclear risks, with supplemental government support. In addition to encouraging widespread availability of insurance, these twin concepts do away with the enormous legal complexities and associated costs that arise when there are dozens of potentially liable participants.

As we approach the expiration of the current extension of the Price-Anderson program, we have seen several proposals that call for its renewal, with changes. The proposals all appear to agree that its "positive" elements should be retained (that is, those features which enlarge the liability of the nuclear industry and increase the chances of obtaining compensation payments). The proposals split into two camps when it comes to the matter of an off-setting balance.

Mr. Seiberling's bill (H.R. 445) and Mr. Hart's bill (S. 445) would destroy the balance entirely by removing the limitation on liability. This would carry down the channelling concept as well, because channelling, without a limitation on liability or government indemnification at a fairly low level, would be of doubtful constitutionality.

These proposals may have been encouraged in part by suggestions that removing the limitation on liability, or eliminating channelling, may stimulate more insurance capacity from private markets. Unfortunately, these suggestions, generally by persons out of close touch with private insurance markets, are unreliable. The result would be at best a substantial drop in insurance capacity, and more likely a collapse of private insurance arrangements.

Senator Stafford has recently introduced a more moderate proposal (S.1761) that attempts to address some of the problems that would result from an outright removal of the limitation on liability. It also has other positive provisions.

Mr. Stafford's bill clarifies the intent of Price-Anderson that punitive damages are outside the scope of the program, which is designed to compensate as many injured persons as possible with admittedly limited resources. This is unquestionably a sound step which helps preserve the financial protection for this purpose by avoiding windfalls to a few and removing an incentive to expensive litigation. We are not certain, however, that the bill draft bars all actions for punitive damages under state law. A more direct preemption of the punitive damage remedy may be needed.

Mr. Stafford's bill also attempts to preserve the channelling concept by providing that funds furnished by the licensees for financial protection "shall be the exclusive source of payments for public liability claims." Other provisions of the bill, however, seem to destroy channelling.

The major feature of the bill is its substitution of an annual cap on the amount of the retrospective premium that may be assessed against each licensed power plant for the absolute limitation on liability. The amount of that assessment, which is now $5 million for an incident, increases to between $10 and $15 million annually. These changes result in an enormous potential increase in the contribution required from each licensee to discharge the liability of all persons who may be liable for a nuclear incident.

There are several reasons why we believe such an increase is not wise. It expands substantially the role of our tort system, which is currently out of control, and at best is an enormously expensive and inefficient system for compensating catastrophes. By establishing an infinitely large compensation fund, it may encourage even further expansion of tort remedies, as our judicial system is unable to exercise balanced restraint in applying tort liability and compensation standards. The present Price-Anderson program has the advantage of allowing Congress to establish more realistic and efficient compensation procedures for an incident that results in tort damages in excess of $640 million.

Such an increase in retrospective assessments as proposed by S.1761 may in itself be so large that it will seriously impair the financial stability of the nuclear industry. This could have an adverse effect on the industry's ability to serve its customers. Safety may suffer in the financial squeeze. The unlimited nature of the obligation appears to violate the concept of fundamental fairness, and may not withstand a test of constitutionality.

Consider first the 95 reactors which will be required to furnish the bulk of the funds to make unlimited liability payments on behalf of the 96th. The 96th reactor will undoubtedly go bankrupt, either immediately or in the course of trying to meet the subrogation claims of the 95, which are granted by the bill. It is apparent that the 95 get no reasonable quid for their quo, because if anyone of them were the 96th, it too would face bankruptcy.

Consider next the subrogation claims of the 95 against the suppliers of the 96th, which are also granted by the bill. They are still omnibus insureds under the financial protection maintained by the 96th. The 95 must continue to indemnify them. Suppose the suppliers are removed from the omnibus protection. The channelling concept is then defeated, and the private insurance arrangements for the nuclear risk crumble. The maximum recoupment is the distress market value of the negligent suppliers' assets. Again it is apparent that the 95 receive virtually no protection in return for the unprecedented, unlimited obligation imposed on them to pay for losses at another plant.

The Pools cannot support bills and proposals that remove the absolute limitation on liability because they will create severe insurance market problems, seriously damaging the ability of the private insurance industry to provide insurance, not only for nuclear power plants, but also for many other persons and firms who live or operate businesses in the immediate vicinity of nuclear power plants.

There are two bills, however. which do recognize that a reasonable limitation on liability is necessary, although they would adjust the balance point. Mr. Price's bill (H.R. 51) would double the amount of the retrospective premium payments from the nuclear reactor operators. The immediate effect would be to raise the total pool of private funds to approximately $ 1.2 billion. We would favor this approach. It is simple and effective.

S.1225, recently introduced by Mr. Simpson, is more complex. It would require at least doubling, and would permit up to tripling, the retrospective premium payments from reactor operators. It would then create a "third tier" of private financial protection in the amount of $500 million to be funded by a kilowatt hour fee on electricity generated and sold by civilian nuclear power reactors.

The three tiered approach, as we understand it, would not damage the channelling and absolute limitation on liability principles that are essential for private insurance back-up. We do have some reservations, however, as to whether it is necessary or wise to complicate financial protection with a third tier funded by what is essentially a special sales tax. We recognize that certain precedents exist with respect to "Superfunds" for hazardous substances, but wonder where a proliferation of special tax supported funds will take us, with each fund "competing" for some special consideration. The hope of retaining a sound, general purpose compensation system seems doubtful.

We note that Mr. Price's approach could easily be adjusted to produce equivalent financial protection by setting the retrospective premium at three times the present $5 million level and holding the S. 1225 retrospective premium at the lower end of its permitted level. For example, assuming 115 operating reactors (using the number Mr. Simpson suggests as reasonable) and $200 million for the first layer of financial protection (to be provided by the Nuclear Pools), the two proposals would each produce about $1.9 billion of financial protection.

Apart from proposals removing the limitation on liability or which would undercut the channelling of liability concept, there are a number of other proposals which, if adopted, would have a significant adverse effect on the amount of private insurance capacity.

Care must be taken not to remove the "extraordinary nuclear occurrence" concept, or to water it down to the point where it becomes meaningless. Otherwise, strict liability would be imposed for unverifiable departures from regulatory limits or releases of small quantities of nuclear material. Radiation injuries, if any, from such low level exposures would be indistinguishable from those occurring naturally or from causes having nothing to do with nuclear power plant operation. Extending strict liability to such cases may be taken as the intent of Congress to depart from the concept that the Price- Anderson Act is a remedy for "catastrophes", and to provide instead for the compensation of any injury to persons working on site or living in the vicinity of a nuclear plant that might be remotely linked to the normal radiation associated with nuclear plant operation.

The Pools will lose capacity if there is a further extension of the 20 year period for discovering and bringing claims after the termination of a Pool insurance policy, or if the cost of handling claims is not included within the policy limits. We should add that the insurance industry is now moving to a consensus that this latter principle should be adopted for all commercial liability policies.

We wish to call the Committee's attention to a new matter. The Pools are beginning to see a sharp upturn in the number of claims against the financial protection from persons employed at reactor sites, mainly employees of independent contractors, alleging injury from low-level exposures to radiation. Normally, we would have expected that claims of this nature would be handled under workers' compensation laws. We do not believe that we have a safety problem or an increase in the risk of injury from low-level exposures to radiation. We think the uptrend is due to a general expansion in the tort remedies available to workers.

We do not have any proposal or request for specific action. Nor do we think that this matter affects the consideration of Price-Anderson renewal. We are, however, concerned that this trend may represent a gross departure from the original premise that the Price-Anderson system was not meant to afford a general remedy for occupational injuries or disease. We have no satisfactory way of building adequate reserves for this type of claim under our present Industry Credit Rating Plan.

We are watching our claims experience closely and are studying the size of the potential exposure with the help of outside experts.

We intend to keep the Nuclear Regulatory Commission and the nuclear industry informed. If the trend continues, the matter may require regulatory or legislative attention. The matter does underscore at this time, however, the importance of retaining a sound definition of the "extraordinary nuclear occurrence" concept and implementing regulations.

There is finally one technical matter that we would like to raise. With the enormous increase in the costs of handling multi-claimant litigation under conventional tort procedures, the consolidation of suit provisions of the Price-Anderson system take on added value in reducing claims handling expenses. It was originally assumed that these provisions would apply to the Three Mile Island Accident even though the Nuclear Regulatory Commission ultimately held that the accident was not an "extraordinary nuclear occurrence" under the statutory definition and its implementing regulations. On the basis of this assumption the Pools were able to provide a consolidated defense in the Federal district court in Harrisburg through one law firm at a cost which represents a small fraction of the costs of handling even less complex litigation in other recent "mass tort" litigation.

The court, however, has now ruled that it had no jurisdiction. We would support legislation that authorizes consolidation of suits in a single Federal district court if they arise out of a nuclear incident that is subject to the Price-Anderson Act, whether or not the incident is an "extraordinary nuclear occurrence."

Although the structure of Price-Anderson has a major effect on private insurance capacity for nuclear risks, downward turns in the financial fortunes of private insurance markets in the United States and abroad can also have a substantial impact. Insurance markets are currently recovering from an unusually long period of heavy operating losses.

The Pools had set their next target for nuclear energy liability insurance capacity at $200 million. Current market conditions have put this goal beyond reach for 1986 but the Pools believe they will be able to maintain current capacity.

In summary, we believe that the existing Price-Anderson program affords a solid base for a sound nuclear power program. We think the emphasis should now be placed on providing for measured increases in the amount of financial protection that can reasonably be absorbed by insurers and the nuclear power industry.

We will continue to support such a program and will make regular efforts to increase our capacity for nuclear insurance.

Richard A. Schmalz
212 Pattonwood Drive
Southington, CT 06489
(203) 747-5332

November 6, 1985

Senator Alan K. Simpson,
United States Senate
Committee on Environment and Public Works
Washington, DC 20510

Dear Senator Simpson:

During my testimony before the Subcommittee on Nuclear Regulation on October 23, 1985 you asked me to provide my analysis of the impact of the various bills dealing with Price-Anderson modification on insurance availability.

There are five different risk groups that must be considered:

A. Nuclear power plants (liability and property insurance).
B. Suppliers of nuclear specialty goods and services, such as the large "prime" contractors and their major subcontractors (liability insurance).
C. The more remote tiers of suppliers, such as those supplying generic parts and equipment (liability insurance).
D. Owners of commercial and residential property located in the vicinity of nuclear power plants (property insurance).
E. Risks with no exposure to the nuclear energy hazard.

These groups are roughly ordered by increasing size and decreasing degree of control or involvement in relation to the major risk associated with nuclear power. For example, there are but 96 risks in group A and only a few hundred in group B. There are perhaps a few thousand risks in group C. The risks in group D number in the millions, but the size of this group is relatively small compared with group E.

The major insurance risk from nuclear power is the possibility of a catastrophe involving the release of substantial amounts of fission products off-site. Such an event is believed to be extremely unlikely, and its timing, location and financial consequences are unpredictable. Moreover, the risk is concentrated at 96 locations within the United States. As noted above, most of our population and industries do not face the risk. This presents an adverse selection problem in attempting to provide property damage coverage directly to group D that is even more severe than that arising in connection with flood insurance.

Another complicating factor is that under modern tort liability rules even the most remote supplier of a defective product can be held jointly and severally liable for the entire loss regardless of the relative contribution of the product to the loss.

Under these conditions it is virtually impossible to develop significant private insurance capacity, or any solid amount of financial protection to the public, by using the conventional method of providing separate policies of liability and property insurance to each person or organizations who wishes to buy it.

It is possible, however, to obtain substantial capacity from private insurance markets, and solid additional finacial protection from private funds, by:

1. Channelling all liability and property insurance to the nuclear power plant operators,
2. Using an industry rating plan which spreads losses over a long period of time,
2. Limiting the plant operators' total (channelled) liability to a reasonable amount, so that the viability of the program is not destroyed by bankruptcies, and
3. Supplementing any inadequacy in the funds from the private sector by government indemnification.

Such an approach gives a very high degree of financial protection to the public, while encouraging the private insurance market to maximize its capacity at reasonable cost. **It does so by freeing the market from the risk of severe overlining in attempting to meet the cumulative demands for coverage from groups A, B, C and D. It** also avoids the problem of adverse selection caused by the disparity in the size of groups D and E. And it provides a stable premium base for the primary and secondary layers of financial protection.

This is the approach developed by the Price-Anderson program and adopted, in large part, by virtually all the market oriented economies that are developing nuclear power. **It is universally recognized as having the added advantage of eliminating costly cross actions for indemnity and contribution among the members of groups A, B and C.**

Taken together these factors create a climate which is favorable to obtaining from world markets substantial private insurance capacity at reasonable cost. In their absence, it is doubtful that much insurance would be available for those risk groups (A through D) that are exposed to the nuclear energy hazard. Certainly, the aggregate amount would be far less than today.

Using these principles, one can predict the general reaction of private insurers in this country and abroad to the various proposals for changes in the present Price-Anderson Program. In cases where some of the favorable conditions have been maintained, but others diminished, it may not be possible to assess accurately the extent of damage to the private insurance market.

Mr. Price's bill (H.R.51) would double the present maximum retrospective premium assessments, raising the total pool of private funds to about $1.2 billion, but leaving the remainder of the program intact. Insurers would regard this as a simple, effective approach to increasing the contribution of private sector financial protection. There should be no adverse effect on insurance capacity.

Insurers would not regard S.1225 (introduced by Mr. Simpson and Mr. McClure) quite as favorably because it imposes a much higher financial burden on the nuclear power plant operators. It permits a tripling of the present maximum retrospective premium assessment, and creates a third layer of $500 million of private financial protection to be funded by a kilowatt hour fee on electricity generated by nuclear power plants.

We have reservations about whether the third tier is necessary or wise, because it creates an automatic, tax supported funding plan which may ultimately supplant private insurance. **However, S.1225 probably would not have any immediate adverse effect on capacity.**

On the other hand, bills such as H.R.2665 (Mr. Weiss), H.R.445 (Mr. Seiberling) and S.445 (Mr. Hart) would remove the limitation on liability entirely. This destroys the economic balance which makes the channelling concept workable, and raises constitutional questions as to an industry wide assessment plan. **The immediate effect of such bills would be a sharp reduction in capacity for insurance to meet financial protection requirements, as well as a drop in the amount of property insurance for nuclear power plants.** In the longer term, heavy pressure will be placed on the nuclear exclusions contained in conventional liability and property insurance policies. Should the nuclear exclusions fail, private markets for conventional liability and property insurance will dry up for all risks subject to the nuclear catastrophe hazard.

Bills such as S.1761 (Mr. Stafford) and H.R ___ (recently proposed by Mr. Udall), while to outward appearances more moderate, will most likely be perceived by private insurers as imposing such heavy financial burdens on the nuclear power industry that they will regard nuclear insurance as too risky a venture to warrant continued support under existing liability and property programs. Both place the limitation on liability at such a high level that they will encourage perpetuation of the current tort law extravaganza.

The continued financial good health of the nuclear power industry following a catastrophe is important for two reasons. First, poor financial health increases the morale hazard; it may undercut safety. Second, nuclear insurance is largely catastrophe insurance. It is not possible to match annual premium flows to annual losses. Thus, adequate premiums can only be achieved on a long term basis. The high post loss assessment liability may seriously impair the continued viability of the nuclear power program, should a catastrophe occur. Even without a guaranteed pot of gold in the billions of dollars, our tort liability system is already imposing extremely high financial burdens on industry with its ever expanding recognition of new "damages" to compensate.

In summary, the only formal proposals of which we are aware that would not lead to substantial loss of private insurance capacity and serious market problems, if enacted in their present form, are H.R.51 and S.1225.

Richard A. Schmalz

Very truly yours,

State of New Hampshire

HOUSE OF REPRESENTATIVES

CONCORD

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TESTIMONY OF REP. ROBERTA C. PEVEAR, MEMBER OF N.H. HOUSE BEFORE THE U.S. SENATE SUB-COMMITTEE ON NUCLEAR REGULATION (10/22/85-10/23/85)

All of the Bills now before the Committee, in my opinion, are flawed in one manner or another. I would hope Congress would do all in its power to rewrite the Price-Anderson Act in such a way that it would not appear cynical to the knowledgeable public.

The N.H. House, in its 1983 Session, passed House Resolution No. 30, expressing the sense of the House that the Congress of the United States, having established the precedent for providing financial protection to the public for the consequences of a serious nuclear accident at a commercial power plant, must, under no circumstances, withdraw the support of the federal government for this liability, or pass on this financial responsibility to the various states, or to a combination of these states.

In looking at this whole problem, it is easy to lose sight of the trees for the forest. After all the fine print has been manipulated, the overriding concern has to be "how well is the public protected". To that end, the question can be divided into two major categories: property and people.

It is easy to know what is fair concerning property, inasmuch as all property insurance has a nuclear exclusion clause. The Congress has made the Price-Anderson Act a substitute for nuclear insurance. Any property owner with insurance should be able to turn his policy in to the Federal-Government and get the equivalent amount he would have had without the nuclear exclusion clause. This would be in accordance with accepted business practices and would be easily understood and implemented.

State of New Hampshire

HOUSE OF REPRESENTATIVES

CONCORD

PAGE 2 - TESTIMONY OF REP. ROBERTA C. PEVEAR, MEMBER OF N.H. HOUSE BEFORE THE U.S. SENATE SUB-COMMITTEE ON NUCLEAR REGULATION (10/22/85-10/23/85)

If you dispose of property in this fashion, this leaves open the compensation for the loss of health and life, and this is a problem I don't feel qualified to address.

The nuclear industry and its friends persist in the belief that the chances for a serious accident are so remote that, for all practical purposes, a serious accident will never occur. If this is the correct sense of things, why be concerned about a limit on financial responsibility? If it is not the correct sense of things, nuclear power ought to be phased out.

5603C
83-0124
08

[illegible]

APR 5 1983

HOUSE RESOLUTION NO. 30

INTRODUCED BY: Rep. Pevear of Rockingham Dist. 17; Rep. LoFranco of Rockingham Dist. 26; Rep. Krasker of Rockingham Dist. 25; Rep. Longworth of Rockingham Dist. 18; Rep. Pearson of Belknap Dist. 5

APR 20 198

REFERRED TO: Science and Technology

A RESOLUTION expressing the sense of the general court that the Price-Anderson Act, as amended, must be further amended, as soon as possible, to provide offsite financial protection to the general public, and to the counties, cities, towns, and other civil divisions of government, including state governments, in accordance with the latest Nuclear Regulatory Commission estimates of the financial consequences of nuclear power reactor accidents, and that the Price-Anderson Act must under no circumstances be repealed, or allowed to expire, but must be renewed as amended before its expiration date.

ANALYSIS

This resolution expresses the sense of the general court that the Price-Anderson Act must not be allowed to expire, but must be renewed by the United States Congress, and its financial provisions be adjusted to reflect the latest Nuclear Regulatory Commission estimates of the financial consequences of a nuclear reactor accident.

5603C
83-0124
03

STATE OF NEW HAMPSHIRE

In the year of Our Lord one thousand
nine hundred and eighty-three

A RESOLUTION

expressing the sense of the general court that the Price-Anderson Act, as amended, must be further amended, as soon as possible, to provide offsite financial protection to the general public, and to the counties, cities, towns, and other civil divisions of government, including state governments, in accordance with the latest Nuclear Regulatory Commission estimates of the financial consequences of nuclear power reactor accidents, and that the Price-Anderson Act must under no circumstances be repealed, or allowed to expire, but must be renewed as amended before its expiration date.

Whereas, the Price-Anderson Act, P.L. 94-197, as amended, was passed into law by the Congress of the United States in 1957 to deal with the unique problems created by a nuclear power industry not yet in being, for which there was no historical insurance data; and

Whereas, the Congress wanted to promote the development of commercial nuclear power, and insurance companies would not provide coverage for catastrophic nuclear accidents; and

Whereas, the public utility companies were unwilling to assume the risks of operating commercial nuclear power plants unless the federal government limited their financial liability for injuries and other damages caused by nuclear accidents; and

Whereas, the Congress passed the Price-Anderson Act limiting the financial liability of a utility for any one reactor accident to $560 million, and further guaranteed to provide $500 million of that amount; and

Whereas, the Price-Anderson Act has been amended twice, in 1965 and 1975, with no change made to the $560 million liability coverage, although the value of the dollar today, in terms of consumer prices, is less than 1/3 of what it was in 1957; and

Whereas, the latest estimates of the financial consequences of a serious accident - not the most serious accident - when Unit One of the nuclear plant in Seabrook, New Hampshire becomes operational, could be as much as $163 billion; and

Whereas, all insurance policies issued by the private sector contain nuclear exclusion clauses so that the public or any division of government, cannot insure itself from the consequences of a nuclear power plant accident; now therefore, be it

Resolved by the House of Representatives:

That it is the sense of the House of Representatives that the Congress of the United States must amend the Price-Anderson Act as soon as possible, to update its financial provisions, and bring its liability coverage into line with the latest Nuclear Regulatory Commission estimates of the financial consequences of nuclear power plant accidents; and

Further Be It Resolved, that it is the sense of the House of Representatives that the Congress of the United States, having established the precedent for providing financial protection to the public for the consequences of a serious nuclear accident at a commercial power plant, must, under no circumstances,' withdraw the support of the federal government for this liability, or pass on this financial responsibility to the various states, or to a combination of these states; and

Further Be It Resolved, that the speaker of the New Hampshire House of Representatives convey this sense of the general court to the President of the United States and to the leadership of the Congress of the United States.

Department of Energy
Washington, DC 20585

March 25, 1986

Honorable Robert T. Stafford
Chairman, Committee on Environment
and Public Works
United States Senate
Washington, D.C. 20510

Dear Mr. Chairman:

On October 22, 1985, James W. Vaughan, Jr., Acting Assistant Secretary for Nuclear Energy, appeared before the Environment and Public Works Subcommittee on Nuclear Regulation concerning reauthorization of the Price-Anderson Act.

Following that hearing, you submitted written questions for our response to supplement the record. Enclosed are the answers to those questions, which also have been sent directly to the Committee staff.

If you have any questions, please have your staff call Mike Gilmore or Cathy Hamilton on 252-4277. They will be happy to assist.

Sincerely,

Robert G. Rabben
Assistant General Counsel
for Legislation

Enclosure

POST-HEARING QUESTIONS AND ANSWERS
RELATING TO THE
OCTOBER 22, 1985 HEARING
ON REAUTHORIZATION OF THE PRICE-ANDERSON ACT
BEFORE THE
SENATE COMMITTEE ON ENVIRONMENT AND PUBLIC WORKS
SUBCOMMITTEE ON NUCLEAR REGULATION

WITNESS: JAMES W. VAUGHAN, JR.

ACTING ASSISTANT SECRETARY FOR NUCLEAR ENERGY

U.S. DEPARTMENT OF ENERGY

QUESTIONS FROM SENATOR ROBERT T. STAFFORD

Question 1(a): In addition to its authority under Price-Anderson, the Department has authority to indemnify contractors under P.L. 85-804 (as implemented by Executive Order 10789, as amended) and 10 U.S.C. 2354.

In situations where more than one of these authorities is applicable, which does the Department prefer and why?

Answer: Since the passage of the Price-Anderson Act, the Department has promulgated regulations to implement its authority under that Act and has utilized the Price-Anderson system to indemnify its nuclear contractors.

Section 2354 of title 10, United States Code, applies to military departments under the Department of Defense and not to the Department of Energy.

DOE could indemnify its contractors through Public Law 85-804. This approach would require the promulgation of appropriate implementing procedures as well as certain statutory findings, e.g., that such indemnification would facilitate the national defense.

There are, however, several disadvantages to indemnification under Public Law 85-804 rather than Price-Anderson. Although subcontractors and suppliers to a prime contractor may be indemnified under the provisions of Public Law 85-804, it would be necessary to include such coverage explicitly in

Answer 1(a)
(continued): each subcontract. Persons who do not have a contract containing the indemnification provisions who may be liable for a nuclear incident (e.g., a driver of a vehicle who caused a transportation accident) would not be covered. This is in contrast to Price-Anderson which provides for "umbrella" coverage of subcontractors and suppliers.

Unlike Price-Anderson, which requires a waiver of defenses in the case of an extraordinary nuclear occurrence, there would be no waiver of defenses provision applicable for a major incident unless such waiver is required by applicable State law. If defenses or issues regarding fault or conduct of the claimant or the contractor are not waived, delays in providing payment pending resolution of such issues are likely.

QUESTIONS FROM SENATOR ROBERT T. STAFFORD

Question 1(b): It is my understanding that the federal government provides unlimited indemnification under these other authorities and that there is no aggregate or individual limit on liability. Why is the Department willing to provide unlimited indemnification for unlimited liability under these authorities but unwilling to provide unlimited indemnification or unlimited liability under Price-Anderson?

Answer: The Department supports a limitation on liability under the Price-Anderson Act, with the proviso in 170e that Congress will thoroughly review an incident that results in valid claims exceeding the statutory limit and take action to protect the public from the consequences of a disaster of such magnitude. As stated above, the Department does not provide indemnification under Public Law 85-804 or 10 U.S.C. 2354.

QUESTIONS FROM SENATOR ROBERT T. STAFFORD

Question 1(c): One possible amendment to the Price-Anderson system would retain the feature of the present system that provides for a waiver of defenses for claims up to a certain limit, and indemnification by the federal government up to that limit. The amendment would alter the present system by removing the prohibition on claims above that limit, but would allow recovery for those claims only under the terms and conditions where recovery is allowed under other existing law, such as P.L. 85-804, that provides for unlimited indemnification by the federal government. In effect, this would be a hybrid between the present Price-Anderson system that the Department uses and the system that the Defense Department uses under P.L. 85-804. The Price-Anderson system would be employed up to a certain limit, and the P.L. 85-804 system would be employed above that limit. This would allow rapid recovery up to a certain limit, and permit full recovery beyond that limit only under the safeguards and conditions that are considered appropriate for full recovery against full indemnification provided by the federal government under other existing law. Please comment on this proposal. Does the Department have any objections to any aspects of this proposal? Would the Department support such an amendment?

Answer: The Department does not support removing the threshold for triggering Congressional review of recovery for damages from a major nuclear incident. Removal of the limitation on liability would remove such threshold and therefore we would not support the suggested amendment.

QUESTIONS FROM SENATOR ROBERT T. STAFFORD

Question 2: If the Price-Anderson Act were allowed to expire, would these other authorities provide the Department with sufficient ability to obtain and indemnify its contractors where necessary?

Answer: There are at least two options which DOE can pursue if Price-Anderson is not extended.

Under the first option, DOE could require contractors to obtain the maximum amount of private insurance coverage available. This, however, may result in much less coverage per incident than the present Federal indemnification of $500 million. There is only so much insurance capacity available to cover all contractors and possibly subcontractors and suppliers involved in nuclear activities. The amount of coverage allocated to each entity insured is relatively limited.

Under the second option, DOE could continue to indemnify its contractors through DOE's general contracting authority or through Public Law 85-804. DOE's general authority does not contain certain features found in Price-Anderson that the Department believes are critical to an assured and timely source of funds for public compensation in the event of a nuclear accident. The disadvantages to using Public Law 85-804 are discussed in answer 1(a) above.

We have been advised by the majority of our contractors that Price-Anderson coverage is essential to their decision to continue doing business with the Department.

QUESTIONS FROM SENATOR ROBERT T. STAFFORD

Question 3(a): The protection afforded by Price-Anderson is referred to as "omnibus," meaning that any person who might be liable for public liability is indemnified under the Act. This includes persons that cause an accident through gross negligence or willful misconduct. Apparently, therefore, even terrorists and saboteurs are protected from public liability under the Act (provided the terrorism or sabotage can be traced to a licensed or contractual activity).

Does the Department believe that terrorists, saboteurs, and criminals should continue to have limited liability for public liability arising from acts of nuclear terrorism, sabotage, or other crimes?

Answer: Harm inflicted on the public by a saboteur, thief, or other malefactor would be a Government responsibility under the broad umbrella coverage of the contract indemnity if the nuclear incident causing the harm arose out of or in connection with a contractual activity and occurred (1) at a contract location; (2) at other locations due to activities performed by persons for whom the contractor is responsible; (3) in the course of transportation of the nuclear material to or from a contract location, or (4) as the result of any item produced or delivered under the contract. All such activities are covered under the Price-Anderson Act. Consequently, the public is protected irrespective of the cause of the accident if it involves any of the above activities under the Department's purview.

We do not believe that an amendment to Price-Anderson is necessary to provide unlimited liability for such acts. (See also answer to question 3(b)).

QUESTIONS FROM SENATOR ROBERT T. STAFFORD

Question 3(b): Does the Department believe that it should continue to indemnify terrorists, saboteurs, and criminals under the Price-Anderson Act for public liability arising from acts of nuclear terrorism, sabotage, or other crimes?

Answer: The Department believes that the current Price-Anderson system has served its dual purpose of protecting the public and encouraging private sector participation in nuclear activities without adverse effects on safety or environmental protection and with a minimum expense to the taxpayer. Therefore, we do not believe that the Act needs to be changed in this regard.

We have never indemnified a terrorist, saboteur or criminal under the Price-Anderson Act. But Price-Anderson provides that, in certain circumstances, if a person is harmed by a terrorist or saboteur, the injured party can recover even though the malefactor may not have resources to pay valid claims. Criminal laws would be available to ensure proper punitive treatment of the malefactor.

Question 3(c): If the Department believes that terrorists, saboteurs, and criminals should not continue to have limited liability or be provided indemnification, how could the Price-Anderson Act be modified to exclude indemnification or limited liability, yet still assure compensation, for acts of terrorism, sabotage, or other crimes?

Answer: Please see answers to questions 3(a) and 3(b).

QUESTIONS FROM SENATOR ROBERT T. STAFFORD

Question 4(a): During the hearing the Department stated that it did not believe it was necessary to have a provision which would allow the Department to recover the costs of indemnification from contractors that committed acts of gross negligence or willful misconduct, but that it would not object to such a provision.

Should there be limited liability for persons that have committed acts of gross negligence or willful misconduct?

Answer: Upon further review, the Department has determined that it would not support an amendment to Price-Anderson that would cause uncertainty on the part of our contractors, subcontractors and suppliers with regard to their exposure to liability for a nuclear incident because such uncertainty may result in their withdrawal from participation in our nuclear programs. Therefore, we support continuation of a limitation on liability for our contractors without regard to the application of such legally imprecise terms as gross negligence or willful misconduct.

QUESTIONS FROM SENATOR ROBERT T. STAFFORD

Question 4(b): Please state whether the Department would support or object to the following amendments to Price-Anderson that are designed to provide for an equitable system of compensation in the event of an incident that is due to gross negligence or willful misconduct:

An amendment that would continue the present system whereby indemnification is provided up to the limit on aggregate liability, but in addition would allow victims to bring a direct action for damages above that limit against persons that committed acts of gross negligence or willful misconduct, and also in addition would allow those providing indemnification to recover the costs of indemnification from persons that committed acts of gross negligence or willful misconduct.

Answer: The Department does not support an amendment calling for victims bringing direct action for damages above the limitation on liability. A procedure is presently in place to protect victims of an accident and action against a contractor, subcontractor, or supplier can be taken through the normal contracting process. Although the contractor is not ultimately financially responsible for third-party claims resulting from a nuclear accident, the contractor is responsible for safety actions based on stringent requirements placed on the contractor by the Government that are directed towards preventing an accident. In addition, financial incentives designed to make the contractors accountable for their actions already exist to assure that

Answer 4(b) (continued): facilities are operated safely. These incentives generally focus on the amount of award fee and affect continuation of the contract. DOE decisions in this regard subsequently affect the compensation and careers of contractor management. Based on past experience, the lack of financial responsibility for third-party liability claims has not made a contractor less concerned about the safety of nuclear facilities. Additionally, the contractor's responsibility for safety extends to all goods and services supplied to him by subcontractors. As noted above, the financial incentives directed towards contractor accountability assure that he maintains control over the safety-related aspects of subcontractor activities.

Question 4(c): An amendment that would provide for unlimited indemnification by the federal government if the damages arose out of acts of gross negligence or willful misconduct, but would allow the federal government to recover the costs of indemnification from persons that committed acts of gross negligence or willful misconduct

Answer: As stated in answer 1(b), we do not support the elimination of the threshold for triggering Congressional review of recovery for damages from a major nuclear incident. Also, as stated above, we do not support an amendment permitting the Government to recover costs of indemnification from persons committing acts of gross negligence or willful misconduct since such an amendment could result in withdrawal of private sector participation in our nuclear programs.

QUESTIONS FROM SENATOR ROBERT T. STAFFORD

Question 5: Should punitive damages be excluded from Price-Anderson coverage, or should the Department continue to be liable for punitive damages for acts of persons indemnified?

Answer: DOE contractors carrying out DOE nuclear activities in compliance with DOE health and safety standards should not be liable for punitive damages. In turn, such damages would not be payable under Government indemnity afforded such contractors under Price-Anderson. This is in accord with the policy expressed in the Federal Tort Claims Act, which prohibits an award of punitive damages against the Government. Such an award would make the taxpayer ultimately responsible for payment of punitive damages and negate the purpose of punitive damages.

QUESTIONS FROM SENATOR ROBERT T. STAFFORD

Question 6(a): With respect to incidents arising from activities of NRC licensees, the Department supports a limit on aggregate liability with a Congressional review mechanism. The Nuclear Regulatory Commission has stated that it supports the Congressional review mechanism because, in part, "Congressional review would allow better tailoring of the compensation mechanism to the specific causes and consequences of the accident." The Commission stated that "appropriate sources of funds for additional compensation might include" the following: (i) the general public as taxpayers; (ii) the utility industry in general through the assessment of additional retrospective premiums; (iii) other participants in the nuclear industry such as suppliers and architect-engineers through assessment of charges after the fact; or (iv) the utility suffering the accident and other persons who may be liable for the accident through a reimposition of tort remedies without recourse to a limit of liability.

Which of these sources does the Department believe could be appropriate sources, as determined by Congress after the accident, for additional compensation?

Answer: The Department believes that the source of any funds provided by the Congress above the limitation on aggregate liability should be left to the discretion of Congress based on the circumstances of a specific incident.

Question 6(b): Would there be any constitutional problems with assessments of sources (ii), (iii), or (iv) by Congress after an accident to compensate the victims of an accident?

Answer: We believe the NRC--the agency that made this proposal--is the appropriate agency to address constitutional problems associated with their proposal.

QUESTIONS FROM SENATOR ROBERT T. STAFFORD

Question 7: With respect to DOE contracts that involve activities carried out pursuant to the high-level waste program and that involve a risk of public liability for a nuclear incident:

(a) What type and how much private insurance is available for these contractual activities?

(b) If private insurance is available, would the Department require its contractors to carry the maximum amount of private insurance available?

Answer: It is not clear that any private insurance would be available for such activities. This would depend upon the dynamics of the insurance industry at the time insurance is sought. We have not approached the insurance industry on this matter since we do not intend to require our contractors to carry private insurance for public liability resulting from a nuclear incident covered by Price-Anderson.

QUESTIONS FROM SENATOR ROBERT T. STAFFORD

Question 7: (c) In its answer to question 2(g) of the pre-hearing questions and answers relating to the June 6, 1985 hearing on extending the Price-Anderson Act before the House Committee on Interior and Insular Affairs Subcommittee on Energy and Environment, the Department stated that "DOE does not require or permit its contractors who are covered by Price-Anderson to carry insurance to cover liability that may result from a nuclear incident since the cost of such insurance would be passed on to the Government."

The Department's policy appears to differ from that of the National Aeronautics and Space Administration, which indemnifies its contractors only for potential liability in excess of the insurance coverage NASA contractors could reasonably be expected to acquire and maintain considering the availability, cost and potential terms and conditions of such insurance at the present time. In addition, the Federal Aviation Administration indemnifies its Air Traffic Computer Replacement contractors only for amounts of losses exceeding $500 million per accident or occurrence. Contractors are required to obtain private insurance up to $500 million.

With respect to contractual activities in the high-level waste program that create a risk of public liability for a substantial nuclear incident, would the Department apply the same policy as it applies to defense contractors, or would it apply the policy that NASA and the FAA apply to their contractors? If the Department would not apply the same policies as NASA and the FAA, please state the reasons.

(d) The GAO recommended in 1981 that the amount of protection provided for incidents arising from activities of DOE contractors be raised, and that one way of doing this would be to require DOE contractors to purchase private insurance, although under current DOE procurement practices the cost of this insurance would be paid for by DOE. Please comment on this recommendation by GAO.

Answer: We intend to apply the same policy regarding commercial insurance for waste activities that we apply to our other DOE activities.

QUESTIONS FOR SENATOR ROBERT T. STAFFORD

Question 7(e): Under the current Price-Anderson system, DOE is authorized to indemnify contractors only if the contracts involve activities under risk of public liability for a substantial nuclear incident. "Substantial" is determined by DOE on the basis of its estimate as to the amount of damage that could result from the activity. In 1982, the Office of Federal Procurement Policy Interagency Task Force on Indemnification recommended that the federal government indemnify its contractors if the national defense would be facilitated thereby and if either the contract (i) is unusually hazardous or nuclear in nature or (ii) gives rise to the possibility of catastrophic losses. Catastrophic losses would be defined as "losses which the particular contractor cannot reasonably protect against through private insurance or self-insurance by the payment of a reasonable premium or the establishment of or reliance on a reasonable self-insurance reserve." What is the DOE's position on an amendment to the Price-Anderson Act that, with respect to contractual activities undertaken pursuant to the high-level waste program, would remove the "risk of substantial nuclear incident" test and replace it with a test that would provide for federal indemnification of contractual activities for contracts that give rise to the possibility of catastrophic losses as defined above? Would such an amendment improve the present system?

Answer: We see no reason for amending that portion of the Act since the present terms allow us sufficient discretion to provide Price-Anderson indemnification when appropriate.

If our cost-reimbursement contractors are required to carry commercial insurance, the cost would be passed on to the Department. Therefore, we do not intend to require such contractors to carry commercial insurance. The public is protected through the Price-Anderson Act and any necessary increase on the limitation on liability can be achieved directly through amendment of the Act.

QUESTIONS FOR SENATOR ROBERT T. STAFFORD

Question 8: In 1966, the Atomic Energy Commission stated the following as one reason for the inclusion of the words "during the course of the contract activity" in section 170n.(1)(c) of the Price-Anderson Act: "The indemnity agreements with AEC contractors cover any products liability of the contractor and extend to claims against the contractor after his product has been delivered to the Government or others. *Although there are cases to the contrary in some jurisdictions*, the doctrine of strict liability has not (yet) *generally* been extended to suits brought against a manufacturer for injuries suffered as a result of or defect in his product. To require complete waivers here would, *in most jurisdictions*, go beyond any liability that would be established under a doctrine of strict liability." Hearings before the Joint Committee on Atomic Energy, 89th Cong., 2d. Sess., Proposed Amendments to Price-Anderson Act Relating to Waiver of Defenses, p. 336 (1966) (emphasis in original).

Products liability law has changed considerable since 1966. The majority of jurisdictions no longer require privity in order to apply the rule of strict liability against a manufacturer of a product.

Should "during the course of the contract activity" continue to be included in 170n.(1)(c)?

Answer: We see no need to delete the words "during the course of the contract activity" in section 170n.(1)(c). These words were intended to require "no-fault" liability to apply against a DOE contractor or subcontractor in the event of an extraordinary nuclear occurrence "while the device was still in the custody of the (DOE) contractor or subcontractor." Senate Report No. 1605, September 16, 1966. However, if "no-fault" or strict liability would apply under State tort law in other situations, these words would not prevent the application of "no fault" or strict liability in such other situations.

QUESTIONS FOR SENATOR ROBERT T. STAFFORD

Question 9: What would be the effect of striking "a device utilizing" from section 170n.(1)(c)?

Answer: If the term "a device utilizing" is stricken from 170n(1)(c), the applicability of the waiver of defenses provision of the Act is broadened. The use of the term in the 1966 amendments to the Act was intended to permit the waiver to apply to situations wherein DOE contractors or subcontractors were in possession or use of:

> "...SNAP auxiliary power and propulsion devices, Plowshare devices, and atomic weapons to the extent they are possessed, operated, or used in the course of the contract activity." Senate Report No. 1605, September 22, 1966.

If the phrase "a device utilizing" is removed from section 170n.(1)(c), the waiver of defenses provision, including the "no-fault" provision, would be applicable to an extraordinary nuclear occurrence arising out of DOF contract activity whenever a DOE contractor or subcontractor is conducting DOE contract activity and is in possession, operation, or use of special nuclear material or byproduct material.

ROBERT T. STAFFORD, VERMONT, CHAIRMAN

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United States Senate
COMMITTEE ON ENVIRONMENT AND PUBLIC WORKS
WASHINGTON, DC 20510

April 21, 1986

Mr. James W. Vaughan, Jr.
Acting Assistant Secretary
for Nuclear Energy
U.S. Department of Energy
Washington, D.C. 20585

Dear Mr. Vaughan:

Thank you for your recent answers to questions I submitted to the Department of Energy to supplement the record of the Subcommittee on Nuclear Regulation's October 22, 1985 hearing on the reauthorization of the Price-Anderson Act.

Upon review of these answers and other material in the record, I find that I still have questions regarding the basis for two of the Department's positions. Additionally, one of the Department's positions appears to conflict with those of other agencies.

First, I would like to explore the Department's view that it should not have a right to recover any of its costs of indemnification from contractors that have committed acts of intentional misconduct or bad faith. I believe that as a general rule it is sound public policy to see that persons are held fully accountable for acts of intentional wrongdoing.

The Department contends that the special nature of its defense programs contractors warrants special treatment. As examples, you point out that many of these contractors are universities operating laboratories on a non-profit basis under strict DOE supervision and that other contractors also operate on a non-profit basis and are not allowed to contract with anyone besides DOE. The Department has argued that these contractors would be unwilling to expose all their assets to the risk of claims for damages if any liability exclusions were eliminated from Price-Anderson.

Without passing on the merits of DOE's position regarding defense contractors, the reasoning with respect to them does not appear applicable to contractors involved in the high-level waste program. For example, contractors involved in the transportation of nuclear waste will be commercial companies that operate for profit. The contractors in the high-level waste program appear to be more similar to contractors engaged in ultrahazardous activities for other agencies. And the indemnification practices of these other agencies suggest that it is not necessary to provide contractors with the degree of protection afforded by Price-Anderson in order to obtain the services in ultrahazardous or nuclear areas.

Thus, I would appreciate your reviewing in more detail the question of whether DOE should have any rights of recourse against high-level waste program contractors who have committed acts of intentional misconduct. Specifically, why does DOE believe that these contractors should not be liable to DOE for costs of indemnification arising out of intentional misconduct? Why does DOE believe that these contractors should be treated the same as contractors in the defense programs?

Second, the Department's position regarding whether its contractors should be required to purchase private insurance appears to conflict with the position of other federal agencies, including the Department of Justice.

This may not be an issue for DOE defense contractors because insurance may not be available at any price for these activities. However, private insurance may well be available for many of the high-level waste activities for which DOE intends to self-insure. For example, up to $160 million in private insurance presently is available for the transportation of nuclear waste away from facilities licensed by NRC.

The Justice Department has stated that there are strong safety and fiscal reasons for requiring federal contractors to obtain insurance, even if the cost of the insurance will be reimbursed by the federal government. Many of these reasons were outlined in that department's testimony before the Senate Judiciary Committee on S. 1254. They were also presented in the "Report of the Tort Policy Working Group on the Causes, Extent, and Policy Implications of the Current Crisis in Insurance Availability and Affordability."

Your responses to questions on insurance for high-level waste contractors did not specifically address these issues. I would, thus, appreciate your explaining in more detail your position regarding whether contractors in the high-level waste program should be required to obtain the maximum amount of insurance available on reasonable terms. Furthermore, if DOE believes that these contractors should not be required to purchase any such insurance, please explain why you believe the safety and fiscal considerations favoring insurance as outlined by the Department of Justice are not persuasive in this situation.

The Subcommittee on Nuclear Regulation may hold further hearings on Price-Anderson. Your answers to these questions will help determine whether additional testimony from DOE on these issues would be necessary at such a hearing.

Please submit your answers to these questions by May 2, 1986. Thank you for your continued attention to this important matter.

Sincerely,

Robert T. Stafford
Chairman

RTS/dbw

Department of Energy
Washington, DC 20585

MAY 19 1986

Honorable Robert T. Stafford
Chairman, Committee on Environment
and Public Works
United States Senate
Washington, D.C. 20510

Dear Mr. Chairman:

Your letter of April 21, 1986, to James W. Vaughan, Jr., Acting Assistant Secretary for Nuclear Energy, has been referred to my office for a response since the issues raised deal with the Civilian Radioactive Waste Management Program.

The first issue you raised concerned contractors for this program. You questioned: "Why does DOE believe that these contractors should not be liable to DOE for costs of indemnification arising out of intentional misconduct? Why does DOE believe that these contractors should be treated the same as contractors in the defense programs?"

The Department believes there are adequate contractual and management safeguards and incentives to provide assurances that contractors act responsibly. At any rate, we continue to believe that such measures should be separate and apart from the basic objective of Price-Anderson coverage whose purpose is to provide a ready source of funds to compensate victims of a nuclear incident.

Contractors and subcontractors are responsible for safety actions based on stringent requirements placed on them by the Government which are directed towards preventing an accident. In addition, financial incentives are designed to make contractors accountable for their actions and to assure that facilities and operations are conducted safely. These Departmental policies and practices apply equally to defense and civilian programs.

The second issue you raised concerned the Department's position regarding whether contractors in the high-level waste program should be required to obtain the maximum amount of insurance available on reasonable terms. In raising this issue, you made reference to the Department of Justice's (DOJ) position on Federal contractor insurance generally and to the report of the "Tort Policy Working Group on the Causes, Extent and Implications of the Current Crises in Insurance Availability and Affordability."

As we stated in our March 25, 1986, answer to your question regarding the Department's policy of not requiring or permitting contractors who are covered by Price-Anderson to carry insurance to cover liability that may result from a nuclear incident, we intend to follow the same policy for waste activities that we apply to other DOE activities.

The Department of Justice's position against government indemnification as expressed in the "Report of the Tort Policy Working Group" applies generally to all persons or companies unable to obtain adequate insurance coverage through the private sector. We agree with the DOJ that government indemnification of such persons would not remedy the problems underlying the insurance availability and affordability crisis.

However, as pointed out by the DOJ in its June 11, 1985, testimony before the Senate Judiciary Committee on S. 1254, existing law now provides for indemnification in appropriate, carefully considered situations such as the Price-Anderson Act.

As DOJ recognized, one of the problems with government indemnification is that this "necessarily would involve new additional forms of government supervision and regulation of private sector activities." The nuclear industry in general, and nuclear waste activities in specific, are already subject to the most stringent government oversight, both in terms of safety requirements and of government supervision. Therefore, DOJ's concern over the need for new additional forms of government supervision and regulation would not be relevant to nuclear waste activities.

Nonetheless, we do not rule out alternatives for providing liability protection that are consistent with that protection afforded the public under the Price-Anderson Act and the full cost recovery provisions of the Nuclear Waste Policy Act of 1982. As the Civilian Radioactive Waste Program develops, we will assess the advantages and disadvantages of requiring program contractors to obtain insurance to the extent it may be available at reasonable cost.

I trust this letter is responsive to your inquiry.

Sincerely,

Ben C Rusche

Ben C. Rusche, Director
Office of Civilian Radioactive
  Waste Management

cc: Honorable Lloyd Bentsen
  Ranking Minority Member

Department of Energy
Washington, DC 20585

April 24, 1986

Honorable Alan K. Simpson
Chairman, Subcommittee on Nuclear Regulation
Committee on Environment and
  Public Works
United States Senate
Washington, D.C. 20510

Dear Mr. Chairman:

On October 22, 1985, James W. Vaughan, Jr., Acting Assistant Secretary for Nuclear Energy, and Ben C. Rusche, Director of the Office of Civilian Radioactive Waste Management, appeared before the Environment and Public Works Subcommittee on Nuclear Regulation to discuss the Price-Anderson legislation.

With your letter dated March 17, 1986, you submitted written questions for our response. Enclosed are the answers to those questions, which also have been sent to the Committee staff.

If you have any questions, please have your staff call Mike Gilmore or Cathy Hamilton on 252-4277. They will be happy to assist.

Sincerely,

Robert G. Rabben
Assistant General Counsel
for Legislation

Enclosure

BCC: Paul Chimes

POST-HEARING QUESTIONS AND ANSWERS
RELATING TO THE
OCTOBER 22, 1985 HEARING
ON REAUTHORIZATION OF THE PRICE-ANDERSON ACT
BEFORE THE
SENATE COMMITTEE ON ENVIRONMENT AND PUBLIC WORKS
SUBCOMMITTEE ON NUCLEAR REGULATION

WITNESS: JAMES W. VAUGHAN, JR.

ACTING ASSISTANT SECRETARY FOR NUCLEAR ENERGY

U.S. DEPARTMENT OF ENERGY

QUESTIONS FROM SENATOR ALAN K. SIMPSON

Anti-Deficiency Act:

Question 1. Please explain the intent, scope, and effect of section 170.j. of the Atomic Energy Act with respect to contracts of indemnification entered into by the Department of Energy pursuant to section 170.d. In authorizing the Department to "make contracts in advance of appropriations and incur obligations without regard to section 3679 of the Revised Statutes, as amended", what authority does this provision confer on the Department that it would not have in the absence of this provision?

Answer: Section 170.j. of the Atomic Energy Act of 1954, as amended, was enacted as part of the original Price-Anderson Act in 1957 and provides:

> j. In administering the provisions of this section, the Commission may make contracts in advance of appropriations and incur obligations without regard to section 3679 of the Revised Statutes, as amended.

Section 3679 of the Revised Statutes, as amended, is the Antideficiency Act, 31 U.S.C. §1341, which prohibits the Government from obligating funds in advance of appropriations. Generally, Government agencies may not indemnify their contractors because such indemnification would violate the Antideficiency Act. The Comptroller General has stated that "exceptions to this policy should not be made without express Congressional acquiescence,...". 62 Comp. Gen 361 (1983).

Answer 1
(continued)

As explained by the Joint Committee on Atomic Energy during consideration of Price-Anderson legislation:

> "Subsection j permits the Commission to enter into an indemnity contract in advance of appropriations and without advertising." Senate Report No. 296, May 9, 1957.

In the absence of this provision, the indemnity provided by the Department would have to be conditioned upon the availability of appropriated funds.

QUESTIONS FROM SENATOR ALAN K. SIMPSON

Question 2: How is this authority implemented with respect to individual contracts of indemnification? What specific language, if any, is included in DOE contracts of indemnification with regard to this provision? Do all contracts of indemnification contain the same language, or does the Department treat individual contracts differently? If so, what is the basis for any such treatment? Please provide a copy of any such language for the record.

Answer: This authority is implemented by the inclusion of a nuclear hazards indemnity clause in contracts entered into between the Department and its contractors who are under the risk of public liability for a substantial nuclear incident. No specific language is included in these clauses with respect to Subsection 170.j.

Department of Energy Acquisition Regulations, 48 Code of Federal Regulations, Chapter 9, permit Department of Energy contracting officers to include the following clauses in applicable contracts: the Nuclear Hazards Indemnity clause, the Nuclear Hazards Indemnity-Product Liability clause, or the Indemnity Assurance to Architect-Engineer or Supplier Prior to Operation of a Production of Utilization Facility clause. These clauses are set out in 48 CFR §952.250. Copies of these clauses are attached. (Attachment A).* Generally, the clauses included in the contracts are identical to the ones set out in our

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*Retained in committee files.

Answer 2
(continued)

Acquisition Regulations but slight variations may result from the specific needs of the Department or the contractor. Subpart 950.70 of 48 Code of Federal Regulation explains when a clause may be included in a contract and which clause is appropriate for a certain activity. A copy of 48 CFR Subpart 950.70 is attached. (Attachment B).*

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*Retained in committee files.

QUESTIONS FROM SENATOR ALAN K. SIMPSON

Question 3: What is the nature of the "obligation" incurred by the Department in its contracts of indemnification? Under what circumstances and for what type and amount of "public liability claims" does the Department oblige the federal government to pay such claims in its contracts of indemnification?

Answer: The Department agrees to indemnify its contractors in accordance with the terms and condition of the Price-Anderson Act. Basically, that means if a court of competent jurisdiction determines that a Department contractor covered by the Price-Anderson Act is liable for damage to third parties for a nuclear incident as defined in the Act, which occurs during the conduct of contract activity, the Department will indemnify that contractor up to $500 million for such damages. The scope of the indemnity is further explained in the attached clauses from 48 CFR §952.250.

QUESTIONS FROM SENATOR ALAN K. SIMPSON

Question 4: How are valid public liability claims paid? How many such claims have been paid by the federal government to date? How were these claims paid? From what source of funds? Were these fund appropriated for that specific purposes? Were these funds appropriated for some other specific purposes? In the event of a substantial award (e.g., $300 million), how would such claims be paid? Could the Department use funds that had been specifically appropriated for some other program, project, or activity for the payment of these claims? Is the Department required to use whatever appropriated funds are available, even though appropriated for some other program, project, or activity, for the payment of such claims, either by the terms of the indemnity agreements or by statute? Does section 170.j. require resort to such appropriated funds, or is this a matter of discretion for the Department to determine? In the absence of a decision to employ available appropriated funds, either as a matter of discretion or because the statute requires such funds to be used, what additional sources of money are available?

Answer: Only one significant incident under the Price-Anderson contract indemnity system has been recorded. In 1961, a nuclear incident at a reactor occurred at a contract location in Idaho. Three U.S. servicemen lost their lives. Settlements were made in a total amount of $266,000 under the indemnity protection.

Records also indicate that in 1966 an employee of a subcontractor to a firm contracting with the AEC spilled some depleted uranium on her hand while opening a vial of the material and claimed that she incurred damages from such incident. In 1970 the Atomic Energy Commission approved settlement of the claim under the indemnity provision of the contract in the amount of $5,000.

Answer 4 (continued)

Our records do not indicate the source of funds for these payments but we believe the payment was made from the funds appropriated to the program conducting the activity where the incident arose.

In September 1985, a case involving two DOE contractor employees who were injured while repackaging nuclear scrap material was settled. DOE will be obligated to indemnify that contractor for $4,000 once payment is made to the claimants. Final arrangements for payment have not been completed.

Normally public liability claims would be paid from the appropriation account that generated the activity that resulted in the incident. If that account did not contain enough funds to cover the liability, the Department would need to seek additional appropriations from Congress.

However, we have more flexibility in making emergency payments. Section 170.m. of the Atomic Energy Act of 1954, as amended, provides that "any funds appropriated to the Commission" would be available for "the purposes of providing immediate assistance following a nuclear incident." Because this provision uses the word "Commission", which refers to DOE's predecessor agency, the Atomic Energy Commission, and because the Commission's authority encompassed nuclear activities, such as those funded by the DOE Atomic Energy Defense Activities, Energy

Answer 4 (continued)

Supply Research and Development, the General Science and Research Appropriation accounts, these accounts could be used to make emergency payments in the event of a nuclear incident. This language does not mandate that the Department must use these other funds to meet its obligations. The Department would still have the option to seek additional appropriations from Congress. But it is not clear whether this language would permit the Secretary to utilize funds in a non-nuclear related account.

Questions From

Senator Alan K. Simpson

Question 5:

Please provide a monthly breakdown, for the past three years, of the unobligated balance in the Department's appropriations account. In addition, please provide a monthly breakdown of the unobligated balance in the Nuclear Waste Fund, since that Fund was established, as well as a monthly breakdown of the amounts in the Fund in excess of the amount appropriated for expenditure by Congress.

Answer:

The attached computer reports (Attachment C)* reflect the unobligated balances in the Departments appropriation accounts by month, for FY 1983, 1984 and 1985.

A separate set of computer reports attached, titled; "Amount of Debt Free Funds in Excess of Amounts Authorized" reflect the Nuclear Waste Fund monthly amounts for:

1. Amount Appropriated
2. Fund Balance
3. Excess (Deficit) of Fund Balance Over Amount Appropriated

for FY 1983, 1984 and 1985

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*Retained in committee files.

QUESTIONS FROM SENATOR ALAN K. SIMPSON

Question 6: Under what circumstances, if any, may the Department pay public liability claims out of the Judgment Fund? Has the Department paid any public liability claims out of the Judgment Fund?

Answer: The Department of Energy does not have direct access to the judgment fund. Only the Department of Justice (DOJ) has such access and therefore the Department of Energy has not paid any public liability claims out of the judgment fund. If the United States is amenable to suit under the Federal Tort Claims Act (FTCA), 28 U.S.C. §§1346(b), 2671, et. seq., then any FTCA judgment would be payable out of the judgment fund.

QUESTIONS FROM SENATOR ALAN K. SIMPSON

Question 7. Under what circumstances, if any, is the Department authorized to meet obligations incurred pursuant to contracts of indemnification through the borrowing or funds? Is this borrowing subject to Congressional approval, either through the appropriations process or otherwise? Please identify all such authorities available to the Department. Is the Department aware of any other instances where the Department or any other federal department or agency is authorized to borrow funds (i.e., to incur obligations) and to expend such funds without an appropriation?

Answer: The Department can incur obligations through the use of borrowing authority only when specifically authorized by law. Therefore, the ability of the Department to borrow funds is subject to full Congressional authorization and appropriation processes. Congress has provided the Department with borrowing authority in only a few instances. One is in the alternative fuels loan guarantee program under section 19(n) of the Federal Nonnuclear Energy Research and Development Act, Public Law 93-577, as amended by Public Law 95-238. Another instance is §302(e)(5) of the Nuclear Waste Policy Act of 1982 which would allow the Secretary to borrow funds to meet liabilities. According to §302(e)(5), borrowing "shall not exceed amounts provided in appropriation Acts."

QUESTIONS FROM SENATOR ALAN K. SIMPSON

Question 8: With respect to contracts of indemnification with contractors engaged by the Department to perform functions pursuant to the "Nuclear Waste Policy Act of 1982", how will public liability claims arising out of the activities of such contractors be compensated? Under what circumstances will such claims be compensated out of the Nuclear Waste Fund? Will the source of funds for the payment of such claims be specified in agreements of indemnification? To the extent that the Department incurs an obligation to pay public liability claims, pursuant to the authority of section 170 of the Atomic Energy Act, and commits to pay such claims out of the Nuclear Waste Fund, is the Department authorized to use the borrowing authority of section 302(e)(5) of the Nuclear Waste Policy Act to pay such claims? Would such borrowing, if employed, be subject to appropriations, or would section 170.j. of the Atomic Energy Act authorize the Department to incur obligations (through borrowing) without the need for an appropriation? Please explain the basis, including the legal reasoning, for your answer?

Answer: We intend to use the Nuclear Waste Fund to pay any indemnity to our contractors for public liability claims arising out of activities funded by the Nuclear Waste Fund. 1 The Department's indemnity agreements do not identify the source of

Question 8 (continued)

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[1] Section 302(d)(4) and (5) of the Nuclear Waste Policy Act of 1982 (NWPA) permits the Secretary of Energy to use the Waste Fund to make payments for "any costs that may be incurred by the Secretary in connection with the transportation, treating, or packaging of spent nuclear fuel or high-level waste" to be disposed of or stored in or used in a facility authorized by the NWPA and "the costs associated with acquisition, design,...operation, and construction" of such facilities. Payment of liability claims for accidents arising during such activities would be "costs" associated with such activities. This approach is consistent with §111(b) of the NWPA, which provides that one of the purposes of the NWPA is to ensure that the costs of carrying out spent fuel and high-level waste

(Footnote Continued)

Answer 8 (continued)

funds for indemnity payments. We do not plan to change this policy for waste activities. The Department may use the borrowing authority of §302(e)(5) of the NWPA to make indemnity payments to contractors for public liability claims arising out of activities funded by the Nuclear Waste Fund established by §302 of the NWPA. According to §302(e)(5), borrowing "shall not exceed amounts provided in appropriation Acts."

(Footnote Continued)
activities will be borne by the person responsible for generating such waste and spent fuel.

QUESTIONS FROM SENATOR ALAN K. SIMPSON

Sovereign Immunity

Question 9: To what extent, if any, does the defense of sovereign immunity apply to public liability claims brought against DOE contractors? Who can assert the defense of sovereign immunity? Who can the defense be asserted against? Does it make any difference whether an extraordinary nuclear occurrence has taken place? Please explain. Under what circumstances can the defense of immunity or any other defense founded in the federal, state, or municipal character of the contractor or of the work to be performed under the contract be asserted to bar any liability? What impact would deletion of the phrase "and who is engaged in activities connected with the underground detonation of a nuclear explosive device" from section 170.d. have on the ability of a contractor or any other party to assert the defense of immunity? Would such an amendment change, in any respect, the Department's current practice with regard to the assertion of such defense?

Answer: With regard to the first part of this question, because of the complex nature of this question and its possible impact on other statutory schemes, we would defer to whatever position the Department of Justice may have on this issue.

Only the United States can assert the defense of federal sovereign immunity. In tort actions against the United States the defense can be asserted against anyone to the extent that it has not been waived by the Federal Tort Claims Act.

With respect to the United States, it does not make a difference whether an extraordinary nuclear occurrence (ENO) has taken place because the waiver of defenses provision does not apply to the United States. In the event of an ENO, the contractor (indemnitee) is required to waive only those defenses specifically set out in the contract. Absent an ENO, the contractors are free to assert any and all defense available to them under any applicable law.

If a contractor is a state entity, the availability of state sovereign immunity would be governed by the law of the particular state.

With regard to the phrase in section 170.d. reading "and who is engaged in activities connected with the underground detonation of a nuclear explosive device," we defer to whatever position the Department of Justice may have on this issue because of its possible impact on other statutory schemes. However, we note that such an amendment would not affect current DOE practice.

QUESTIONS FROM SENATOR ALAN K. SIMPSON

Question 10: To what extent, if any, are civil actions for injury, loss of property, personal injury, or death due to exposure to radiation based on acts or omissions by a contractor in carrying out an atomic weapons testing program under a contract with the Department subject to the provisions of the Price-Anderson Act? Were such civil actions covered by Price-Anderson prior to the enactment of section 1631 of Public Law 98-525? Aside from the civil actions now covered by this provision, are there any other actions involving the atomic weapons testing program that would fall under Price-Anderson?

Answer: Since the inception of the Price-Anderson indemnity system in 1957, public liability for a nuclear incident covered by the indemnity has included legal liability due to acts or omissions of a DOE contractor in the course of its atomic weapons testing activities. We do not believe that section 1631 of Public Law 98-525 intended to, or did, affect such continuing coverage. DOE's contracts with pertinent contractors, containing DOE's standard agreement of indemnification pursuant to Section 170d. of the Atomic Energy Act of 1954, as amended, was not modified in any way as a consequence of enactment of Public Law 98-525. In regard to the concluding sentence of this inquiry, we are not aware of any other actions.

QUESTIONS FROM CHAIRMAN ALAN K. SIMPSON

Foreign Incidents

Question 11: To what extent, if any, does the Price-Anderson Act cover nuclear incidents occurring outside of the United States? Are there DOE contractors operating in areas which might lead to a nuclear incident occurring outside of the United States? If so, how many? What activities are these contractors engaged in? Is there a need to continue Price-Anderson's coverage for such activities? Why? Are any changes in that coverage necessary or appropriate? If so, please provide a detailed justification for any recommendations that the Department has.

Answer: Subsection 170.d. of the Atomic Energy Act of 1954, as amended, provides in pertinent part that "...in the case of nuclear incidents occurring outside the United States, the amount of indemnity provided by the (Department) shall not exceed $100,000,000." Under Section 11.q. of the Act, a "nuclear incident" is defined to include any occurrence within the U.S. causing (within or outside the U.S.) bodily injury, sickness, disease, or death, or loss of or damage to property, or loss of use of property arising out of or resulting from the hazardous properties of source, special nuclear, or byproduct material. Section 11.q. also notes "...as the term is used in Subsection 170.d., it shall include any such occurrence outside the United States if such occurrence involves source, special nuclear or byproduct material owned by, and used by or under contract with, the United States."

Answer 11 (continued): At the present time the Department of Energy is conducting a survey of all contractors indemnified under the Price-Anderson Act to determine overseas activities, if any, that fall under Subsection 170.d. This survey should be completed in May 1986 and the results will be submitted to the Subcommittee. Since it is possible that nuclear-related activities that involve contractor operations in foreign countries could be conducted in the future, Price-Anderson coverage should be maintained. DOE does not believe that any change in coverage is necessary or appropriate at this time.

QUESTIONS FROM SENATOR ALAN K. SIMPSON

Miscellaneous:

Question 12: Please provide a listing of current DOE contracts that incorporate Price-Anderson Act coverage, together with a short description of the work performed under each contract. How many prime contractors incorporate Price-Anderson Act coverage? How many subcontractors? Of the total, what percentage of the contracts involve: (i) activities undertaken by the Department to implement the Nuclear Waste Policy Act; (ii) defense-related activities; (iii) civilian activities, other than those related to implementation of the Nuclear Waste Policy Act?

Answer: Attached is a listing of current Department of Energy prime contracts that incorporate Price-Anderson Act coverage, including a short description of the work performed under each contract. (Attachment D).* This list is current as of April 11, 1986.

Attachment D* includes all the contracts listed on Attachment E,* which were executed between the Department and utilities or other owners and generators of spent nuclear fuel and high-level radioactive waste pursuant to the Nuclear Waste Policy Act of 1982. In these contracts, the generators agree to pay fees to the Department in return for the Department's provision of disposal services. While the contracts per se do not include Price-Anderson indemnification, they contain a provision which represents that the Department will include in its contracts "for the operation of any DOE facility" (i.e. the geologic repository to be used for disposal of such nuclear waste) an indemnity agreement based on the Price-Anderson Act. By virtue of that indemnity agreement, the Department will have agreed to indemnify not only the contractor operating the repository, but also any other person who may be liable for a nuclear incident arising out of or in connection with repository activities.

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*Retained in committee files.

Because of the unique umbrella coverage provided by the indemnity, the Department need not, and does not, include the indemnity in each subcontract protected by the indemnity. The indemnity included in the prime contract protects any subcontractor or other person who may be liable for a nuclear incident in connection with the activity covered by the prime contract. Therefore, it is not possible to determine the exact number of subcontractors protected by the indemnity.

The contracts in Attachment D*(not including those between DOE and the owners and generators of high-level waste) cover defense-related activities, Nuclear Waste Policy Act (NWPA) activities, civilian activities other than NWPA, or combinations of two or all three of these activities. The majority of the contracts cover defense-related work. The exact percentages are difficult to determine and further complicated by the fact that some activities are jointly funded (by both defense activities and NWPA for example) or the results are shared by multiple sponsors. At the present time, only two contracts include NWPA activities.

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*Retained in committee files.

QUESTIONS FROM SENATOR ALAN K. SIMPSON

Question 13: Please provide a listing of all DOE contracts that incorporate Price-Anderson Act coverage that will expire between August 1, 1987 and September 30, 1988.

Most DOE contracts expire within 5 years of execution. Three major DOE operating contracts (for operation of the Los Alamos National Laboratory, Lawrence Berkeley and Lawrence Livermore National Laboratories, and the Hanford, Washington, site) will expire on September 30, 1987. The expiration dates for all the contracts incorporating the Price-Anderson indemnity are indicated on Attachment D.

QUESTION FROM SENATOR ALAN K. SIMPSON

Question 14: Are all contractors who are indemnified under the Price-Anderson Act DOE contractors? Are any contractors indemnified under the Price-Anderson Act for work performed for parties other than DOE? If so, please describe all such indemnity agreements, including the party with whom the indemnity agreement has been signed and the nature of the work performed.

Answer: Section 170.d. of the Atomic Energy Act of 1954, as amended authorizes only the Department of Energy (DOE) and the Nuclear Regulatory Commission (NRC) to enter into Price-Anderson indemnity agreements. We have been informed by NRC staff that the NRC generally uses DOE contractors for any nuclear related contract activity and therefore NRC does not use its contractor indemnity authority. DOE participates in a space program, involving nuclear energy sources, with the National Aeronautics and Space Administration (NASA). DOE has included a Price-Anderson clause in its contract with General Electric Company for certain activities under that joint program. A description of that contract is included in Attachment D.

Also, under the umbrella protection of the indemnity, subcontractors to and suppliers of the prime contractor as well as any other person who may be liable for a nuclear incident arising out of or in connection with the prime contract authority would be provided the same indemnity protection as the prime contractor.

QUESTIONS FROM ALAN K. SIMPSON

Question 15: Please summarize the claims experience, to date, under the Price-Anderson Act. How many claims have been filed for public liability arising out of nuclear incidents involving DOE contractors? How many of those claims have been disposed of? Of the claims disposed of, how many have: (i) been settled out of court; (ii) gone to trial? Of the claims disposed of, how much has been paid out? How many claims are currently pending? For what amounts? How much has been spent since the enactment of Price-Anderson on investigating and settling claims and defending suits for damage?

Answer: DOE has approximately 5,000 claims (administrative claims plus lawsuits) alleging radiation injuries which have been made against the U.S. under the Federal Tort Claims Act. Some of these claims involve campanion claims against DOE contractors, and some are solely against DOE. Price Anderson would only come into play where a contractor indemnified by DOE pursuant to Price Anderson was sued. DOE does not maintain records of all suits and claims which have been made solely against contractors.

The Uranium Miners case and the Allen case are the only two cases that have gone to trial on the merits involving large number of claimants, neither of these suits involve Price Anderson indemnity agreements. There have been a few (less than 10) single claimant cases that have gone to trial on the merits. Most of the claims that have been resolved in favor of the United States subsequent to filing suit have been resolved as a result of dispositive motions, i.e., to dismiss and for summary judgment

Answer 15 (continued)

on a variety of issues. Many claimants have voluntarily withdrawn their claims. Less than 10 claims involving indemnity agreements have ever been settled by DOE. All settled claims involving DOE indemnitees would total less than $1.5 million.

The aggregate amount of all pending lawsuits involving DOE is approximately $4 billion. The aggregate amount of all pending administrative claims is $3.8 billion. We do not have records on how much has been spent since the enactment of Price-Anderson on investigating and settling claims and defending suits for damage.

QUESTIONS FROM CHAIRMAN ALAN K. SIMPSON

Question 16: Does the Department collect a fee, pursuant to section 170.f., from parties with whom an indemnification agreement is executed? If so, how much has been collected pursuant to this authority?

Answer: Subsection 170.f. of the Atomic Energy Act of 1954, as amended, applies to NRC licensees involved in the operation and construction of nuclear electric generating plants. Consequently, the Department does not collect fees from its contractors with whom it has executed an indemnification agreement.

QUESTIONS FROM SENATOR ALAN K. SIMPSON

Question 17: What significance does the term "substantial" have in section 170.d.? What is a "substantial nuclear incident?" Does DOE have contractors who undertake activities that might result in a "nuclear incident", but not a "substantial nuclear incident", that are not covered by an indemnity agreement? Should the term "substantial" be retained? If so, why?

Answer: The term "substantial" in §170.d. of the Atomic Energy Act of 1954, as amended, has been interpreted by the Department to permit Price-Anderson indemnification only in contracts where the maximum conceivable damage that can result from a nuclear incident is over $1 million. Generally, DOE includes the clause for contracts if that figure is $60 million or more, but we permit use of the clause under special circumstances when the figure is between $1 and $60 million. 48 CFR §950.7005. See Attachment B.

All DOE's major nuclear facilities are covered by Price-Anderson. Attachment F* lists DOE contractors who undertake activities that might result in a nuclear incident but not a substantial nuclear incident, and therefore are not covered by a Price-Anderson indemnity agreement. We see no reason for amending that provision since the present terms allow us sufficient discretion to provide Price-Anderson indemnification when appropriate.

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*Retained in committee files.

QUESTIONS FROM CHAIRMAN ALAN K. SIMPSON

Question 18: What remedies are available to the Department to ensure that contractors act in a manner that does not endanger the public health and safety? Can the Department (i) cancel a contract; (ii) impose penalties or fines; or (iii) withhold award fees? If so, under what circumstances? How often has the Department taken such action? For what reasons? Are there other options available to the Department?

Answer: DOE contractors are responsible for complying with Federal and State environmental, health, and safety laws. To ensure that these laws and DOE environmental, health, and safety orders are followed, DOE regularly inspects its facilities and may reduce the amount of the fee awarded to a contractor for inadequate performance in these areas. DOE decisions in this regard may also affect the compensation and careers of contractor management.

The Department can cancel a contract if the contractor has failed to meet environmental, health, and safety requirements. DOE does not have the authority to impose fines or penalties on a contractor, but can withhold for cause all or a portion of the contractor's award fee. While DOE has not terminated any contract for failure to comply with environmental, health, and safety regulations, we recently opened to competitive bidding the operating contract at the Department's Feed Materials Production Center near Fernald, Ohio. Our purpose was to obtain the best management

Answer 18
(continued):

possible at the facility and we subsequently awarded the operating contract to Westinghouse. In FY 1985, DOE withheld approximately $400,000 of an award fee from an operating contractor for performance considered less than optimum in management, environmental protection, and quality assurance.

QUESTIONS FROM SENATOR ALAN K. SIMPSON

Question 19: To what extent is the Department authorized to indemnify contractors pursuant to: (i) Public Law 85-804; (b) 10 U.S.C. 2354; or (iii) DOE's general contracting authority? Has the Department ever indemnified contractors pursuant to any of these authorities? If so, which ones and for what activities? Where the Department is authorized to indemnify contractors pursuant to any of these authorities, please provide a side-by-side comparison of the provisions governing such indemnification, as it relates to the major features of the Price-Anderson.

Answer: (i) DOE could indemnify its contractors through Public Law No. 85-804. This approach would require the promulgation of appropriate implementing procedures as well as certain statutory findings, e.g., that such indemnification would facilitate the national defense.

(ii) Section 2354 of title 10, United States Code, applies to military departments under the Department of Defense and not to the Department of Energy.

(iii) DOE may be able to indemnify its contractors through its general contracting authority but only if such indemnity is subject to the availability of appropriated funds. The Comptroller General has suggested that no open-ended indemnities be promised without statutory authority to contract in advance of appropriations. 62 Comp. Gen. 361 (1983).

Since the passage of the Price-Anderson Act in 1957, the Department has promulgated regulations to implement its authority

Answer 19 (continued)

under that Act and has utilized the Price-Anderson system, rather than Pub. L. No. 85-804 or general contracting authority, to indemnify its contractors for public liability for a nuclear incident.

COMPARISON OF PROVISIONS GOVERNING INDEMNIFICATION

	Price-Anderson	Pub. L. No. 85-804	General Contracting Authority
Ability to Obligate Funds in Advance of Appropriations	Yes	Yes	No
Umbrella Protection of Subcontractors, Suppliers, etc.	Yes	No	No
Public Protection Features Such As Waiver of Defenses	Yes	No	No

QUESTIONS FROM SENATOR ALAN K. SIMPSON

Question 20: In the event that a claim is brought for public liability arising out of a nuclear incident involving a DOE contractor, who is named as the party defendant in the lawsuit? Who defends this party? Does the contractor typically retain its own legal counsel and mount its own defense, or is this normally undertaken by government attorneys? How many party-defendants are normally involved in such litigations?

Answer: If just the contractor is sued, then just the contractor is named as a defendant. It is common, however, for both the United States and the contractor to be named as defendants in the same suit. The United States may be the only defendant. Whether the United States is a defendant alone, the contractor is a defendant alone, or the United States and the contractor are defendants together depends primarily on the relationship between the plaintiff and the United States and the plaintiff and the contractor.

The contractor is either defended by private counsel (all defense costs would be borne by the DOE) or the defense of the contractor is assumed by the United States at the discretion of the Attorney General on a case-by-case basis. The United States represents itself.

The number of defendants depends on the nature of the case -- there is no norm.

QUESTION 21: Has the Department undertaken any work to assess the potential consequences from an accident involving disposal of nuclear waste in a geologic repository? If so, please provide the results of that work to the Subcommittee. If not, does such work need to be undertaken, what steps have been undertaken to address this issue, and when do you expect any currently-ongoing work to be completed?

ANSWER: The Department evaluated potential consequences of an accident involving the geologic disposal of nuclear waste in the Final Environmental Impact Statement - Management of Commercially Generated Radioactive Waste, October 1980, DOE/EIS-0046F. This FEIS supports the selection of geologic disposal over other alternative disposal methods and concludes that there appear to be no environmental issues that would reasonably preclude pursuit of geologic disposal. Further, the FEIS analyzed the impacts of a range of potential accidents as well as their associated probabilities of occurrence. In addition to the FEIS, other documents issued by the DOE, NRC, the nuclear industry, and scientific researchers in the U.S. and abroad discuss accidents and risks for geologic disposal. The Department is planning to issue a compilation of these previous studies.

In addition, the Department, in early 1985, initiated studies relating to the evaluation of risk associated with various aspects of the radioactive waste management system. There are currently two efforts underway, one with Brookhaven National Laboratory and the other with Pacific Northwest Laboratory (PNL). We expect that, within the next several weeks, a comprehensive literature survey on the topic of risk assessment will have been completed by Brookhaven. By the end of the summer, a report will have been completed that will contain a critical review of risk and probability estimates that have already been performed. In mid-1987, a comprehensive assessment is planned for issuance on the public health and welfare consequences and costs associated with risk and probabilities of an accident involving the radioactive waste management system.

PNL's effort approaches the issue of risk assessment from a systems analysis perspective. They are developing a risk factor data base using existing data and information. This is expected to be completed by the end of September 1986. Various assumptions as to events, probabilities, system configuration, and costs will then be applied to evaluate risks associated with the development and operation of the Radioactive Waste Management System. This systems analysis phase of the effort is to be completed by the end of fiscal year 1987.

QUESTION FROM SENATOR LLOYD BENTSEN

Question: What would be the effect of the expiration of Price-Anderson?

Answer: Neither the Price-Anderson Act or its original legislative history addresses the term of the indemnity agreement for DOE contractors under section 170(d), which provides: "...the (Secretary) is authorized until August 1, 1987, to enter into agreements of indemnification with its contractors..."

Therefore, it appears that after August 1, 1987--without Congressional action--no new Price-Anderson contractor indemnity agreements would be authorized. But there is nothing in the Act or its legislative history to indicate that pre-existing agreements would not be valid until the date of their expiration. Most DOE contracts expire within 5 years of execution. Three major DOE operating contracts (for operation of the Los Alamos National Laboratory, Lawrence Berkeley and Lawrence Livermore National Laboratories, and the Hanford, Washington, site) will expire on September 30, 1987. If Price-Anderson is not renewed before that date, DOE would not be authorized to include Price-Anderson indemnity provisions in those newly executed operating contracts.

There are at least two options which DOE can pursue if Price-Anderson is not extended.

Question from Senator Lloyd Bentsen (continued)

Under the first option, DOE could require contractors to obtain the maximum amount of private insurance coverage available. This, however, may result in much less coverage per incident than the present Federal indemnification of $500 million. There is only so much insurance capacity available to cover all contractors and possibly subcontractors and suppliers involved in nuclear activities. Of course, if insurance capacity sufficient to cover the contractors, subcontractors, or suppliers perceived risks is not available, such persons would work for the Department only at a cost high enough to compensate them for taking such noninsured risks.

Under the second option, DOE maybe able to indemnify its contractors through DOE's general contracting authority or through Public Law No. 85-804. DOE may be able to indemnify its contractors through its general contracting authority but only if such indemnity is subject to the availability of appropriated funds. The Comptroller General has suggested that no open-ended indemnities be promised without statutory authority to contract in advance of appropriations. 62 Comp. Gen. 361 (1983).

If the Department utilized Public Law No. 85-804, it would require the promulgation of appropriate implementing procedures as well as certain statutory findings, e.g., that such indemnification would facilitate the national defense.

Question from Senator Lloyd Bentsen (continued)

There are, however, several disadvantages to indemnification under Public Law 85-804 rather than Price-Anderson, which can be summarized as follows:

Although subcontractors and suppliers to a prime contractor may be indemnified under the provisions of Public Law 85-804, it would be necessary to include such coverage explicitly in each subcontract. Persons who do not have a contract containing the indemnification provision who may be liable for a nuclear incident (e.g., a driver of a vehicle who caused a transportation accident) would not be covered. This is in contrast to Price-Anderson which provides for "umbrella" coverage of subcontractors and suppliers.

Unlike Price-Anderson, which requires a waiver of defenses in the case of an extraordinary nuclear occurrence, there would be no waiver of defenses provision applicable for a major incident unless such waiver is required by applicable State law. If defenses or issues regarding fault or conduct of the claimant or the contractor are not waived, delays in providing payment pending resolution of such issues are likely.

QUESTIONS FROM SENATOR DANIEL PATRICK MOYNIHAN

Question 1: How large might the total amount of claims be in the event of a disaster -- however unlikely -- at a commercial nuclear power plant, or one connected with DOE activities? Would it be possible for such claims to exceed the $640 million protection currently provided, or the $2.4 billion contemplated by Senators Simpson and McClure? If the retroactive assessment for each facility were increased to $10 million annually, for how long might we expect that payments might have to continue?

Answer: Establishing the potential damages and amount of money that would be necessary to satisfy claims immediately after a nuclear incident would require developing a complex model for each facility including not only reactors but the large number of other facilities involved in nuclear related activities. Each model would then have to be used to estimate the damages and the claims resulting from a specific incident and each model would have to be used to analyze each type of incident.

Estimating damages through modeling is a methodology that would require making a large number of assumptions about the type of incident which occurs and the complex chain of events it sets off. It would also require making assumptions about hundreds of variables such as atmospheric conditions, population density, operator response, emergency plans in place, population response, etc. Hundreds of scenarios would have to be developed and analyzed to establish a range for

Answer 1 (continued): damages resulting from a nuclear incident. This approach would then have to be repeated for each nuclear facility. The Department believes that such an exercise would only lead to a very wide range of values for the damages resulting from a nuclear incident that would be of very little value in helping to establish a liability limit.

In addition, it is important to recognize that there is insufficient actuarial or statistical basis for associating dollar value with off-site radiation releases, especially of a low level nature. The assumptions used to arrive at an estimate of damages would be subject to conjecture.

In a September 1981 hearing before the House Science and Technology Subcommittee on Energy Research and Production, former Deputy Secretary W. Kenneth Davis explained the Department's position in the following manner:

> "...(t)here have been a whole series of studies... trying to assess the possible damages as the result of various kinds of nuclear incidents. These have been followed by a whole series of...speculations. It all depends on your assumptions, how serious you think the occurrence might be, and what its probability is. The result is we have ended up over the years with enormous ranges of estimates of what the potential consequences might be, a very great degree of imprecision and wide ranges in individual studies, a great deal of discussion about the validity of the studies, and I would say that the odds on anybody being able to come up with a definitive figure are extremely remote. We simply don't have a methodology or a way of arriving at the figures nor the criteria by which one ought to pick the figure."

Answer 1 (continued): DOE believes that a process that satisfies claims by making a large fund available to satisfy the needs of claimants in the case of a nuclear incident is a reasonable, appropriate, and balanced approach. A fund containing $2.4 billion would be sufficiently large as long as the law continues to provide that Congress can make more funds available in an expeditious manner if valid claims exceed the size of the fund.

QUESTIONS FROM SENATOR DANIEL PATRICK MOYNIHAN

Question 2: Concern has been expressed that it might not be proper for us to treat all utilities equally, as we discuss exposing them to either very large or unlimited liabilities for accidents that may take place elsewhere. Should we treat the "retrospective premiums" much the same way that the commercial insurers treat the premiums that they actually do charge the utilities?

Answer: American Nuclear Insurers, the underwriters for the $160 million primary layer of liability insurance, charge reactor operators annual premiums ranging from $109,000 to $810,000. The amount of the premium depends largely on the power levels at the site and the location of the site. The retrospective premium, on the other hand, does not depend on any factors related to the reactor or the reactor site. The amount of the retrospective premium is a flat fee with a current maximum of $5 million per reactor. Varying the retrospective premium from reactor operator to reactor operator would raise a number of issues that would be extremely difficult and costly to resolve.

A variable retrospective premium would require the Government to develop criteria and rules for calculating the retrospective premium based on relevant information about the reactor operator, the reactor site, and any other factors

Answer 2 (continued):	deemed important. DOE believes that such an approach would not be desirable. The flat fee retrospective premium should be maintained.

QUESTIONS FROM SENATOR DANIEL PATRICK MOYNIHAN

Question 3:	It is exceedingly difficult to deal rationally with extremely unlikely events that pose very large potential risks. Many nuclear engineers understand the statistics and the probabilities full well, but just don't believe that a major nuclear accident is going to happen. I am concerned that this belief -- the same belief that we all depend on, with much less justification, each time we step into an automobile -- makes it difficult for the professionals who run our nuclear power industry to keep a clear vision of the risks of what they do. And I am concerned that discussions of the consequences of such an accident, financial or otherwise, do not contribute to reducing these risks -- because they just don't believe that an accident is going to happen. What incentives could we create to encourage even more care on the part of our nuclear professionals? Are there programs that we can create to help them?
Answer:	The professionals involved in reactor design, construction, and operation are fully cognizant of the risks of what they do. Even though the probability of a nuclear accident is extremely low, they realize that these probabilities are finite and that accidents can occur unless they take all possible precautions in their areas of expertise. There are very stringent rules and regulations that are in place relative to the design and operation of nuclear power plants and there are continuing upgrading programs for management and professionals including reactor operators. There is also a data exchange system established between reactor owners so that "lessons learned" in operations and recent safety related developments can be known to all parties. The Nuclear Regulatory Commission, the Institute for Nuclear

Answer 3
(continued): Power Operations, the Nuclear Utility Management and Resources Committee, and the individual plant owners all direct their efforts towards upgrading professional capabilities so that safe plant operations are assured.

JOHN J. KEARNEY, Senior Vice President

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December 23, 1985

Mr. James Curtis
Associate Counsel
Senate Subcommittee on Nuclear
Regulation
Room 410
Senator Dirksen Office Building
Washington, D.C. 20510

Dear Jim:

Enclosed are responses to the questions asked of Mr. Lee during his recent testimony on Price Anderson before the Senate Subcommittee on Nuclear Regulations. I hope our delay in responding to these questions did not cause you inconvenience.

Sincerely yours,

Jack

John J. Kearney

JJK:gh

Enclosure

cc: Mr. Steve C. Griffith, Jr., Esquire
Senior Vice President and
General Counsel
Duke Power Company

bcc: Messrs. Fred Davis
Edward Davis
Joe Knotts

1. Q. In previous testimony, the nuclear utilities have supported extending the existing Price Anderson system, with perhaps an increase of $5 million in the amount of the one-time retrospective premium. The Congressional review mechanism would be retained. In a Price Anderson system with a Congressional review mechanism, what would be the options for Congress, after an accident, as to who should pay for the damages if the liability limits are exceeded? Could Congress declare after the accident that the nuclear utilities should be assessed for the excess damage? The suppliers and contractors? The responsible parties? To avoid delay in making these determinations after the accident, would it be advisable to state in the Act what the options would be after the accident? In the absence of such a statement, would the limit on liability impose constitutional constraints on the choices of Congress?

A. In the event that Congress were ever called upon to appropriate funds to pay compensatory damages in excess of primary and secondary nuclear liability insurance, all would agree that the money to replenish the Treasury must come from somewhere. Though funds might be diverted from other uses or borrowed, the ultimate source of those funds, in the absence of special revenue measures before or after the fact, would be general revenues, primarily various taxes already paid or to be paid.

However, there is nothing to prevent Congress from levying a new tax in order to reimburse the Federal Treasury so long as it observes the constraints laid down by the Constitution (as interpreted by the Supreme Court)1/ on the exercise of its taxing power. Thus, there is nothing to prevent the Congress from reimbursing the Federal Treasury by means of an appropriate tax levied on an appropriate sector of the economy. Congress is already obligated to avoid exacting payment from nuclear power plant suppliers and contractors who have undertaken work under existing law. Absent Price Anderson, such firms would not have accepted nuclear work in the first place or, if they did, would have purchased insurance or would at least have included a liability factor in pricing and thus self-insured. Similarly, if the licensee were responsible, it could not be singled out to

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1/ The focus of judicial scrutiny of a challenged tax measure falling exclusively on one sector of the economy or type of enterprise presumably would be an "equal protection" analysis. Although "equal protection" was in earlier days considered inapplicable to the federal government and specifically federal taxation, Helvering v. Lerner Stores, 314 U.S. 463 (1941), the Supreme Court has since read equal protection into the Fifth Amendment. Bolling v. Sharpe, 347 U.S. 497 (1954); Frontiero v. Richardson, 411 U.S. 677 (1973); Johnson v. Robison, 415 U.S. 361, 364 (1973). Though our research has revealed no federal tax measure to have been reviewed by the Supreme Court from an equal protection standpoint since that change, state taxes have been, and the Supreme Court has indicated that legislatures will be given broad discretion to choose reasonable classes to be taxed. Lehnhausen, Director, Department of Local Government Affairs of Illinois v. Lake Short Auto Parts Co., et al., 410 U.S. 356, 359 (1973).

pay additional liability costs over and above Price Anderson coverage. In this sense, there are already constitutional constraints on the choices available to Congress.

Nonetheless, it would appear that Congress could enact a tax on an appropriate economic activity just as it could in order to raise revenues for other unplanned expenditures after the fact. One example would be a tax on the generation or sale of electric energy. However, no specific revenue source should be selected in advance, because what might, under all of the circumstances, be the most appropriate available source of revenues cannot be predicted. **A general statement might be included in subsection 170.e to the effect that Congress reserves the right to reimburse the Federal Treasury through an appropriate tax to the extent it has appropriated funds for compensatory damages in excess of primary and secondary insurance.** Though such a statement would not be necessary since it would merely restate powers that already exist, it might serve to remove any doubt as to the availability of options for reimbursement of the Treasury.

2. Q. Should punitive damages be excluded from Price Anderson coverage? Please give reasons.

A. Price Anderson should not be amended to exclude insurance for, and application of the liability limit to, punitive damages, unless, of course, punitive damages were precluded in any situation to which Price Anderson applied. Price Anderson is a compensation system, not an enforcement or punishment program. Other parts of the Atomic Energy Act provide criminal and civil penalties. As amended in 1975, Price Anderson is intended to give priority to compensatory damages for economic losses in preference to punitive damages if available insurance is insufficient for both. Congress should continue to give preference to compensation of actual economic losses either by retaining the present law intact or by precluding punitive damages in the case of a nuclear incident as defined for purposes of Price Anderson in the Atomic Energy Act.

3. Q. In previous testimony, the nuclear utilities stated that an annual retrospective premium system, with no limit on aggregate liability, would impose "artificial" costs on nuclear power generation by making it more difficult to attract capital.

(a) Please give an estimate, with supporting data, of the dollar amount of these costs.

A. Measuring the perceived risk component of borrowing costs is difficult but this risk factor can be significant. For example, a study made in 1981 by Anthony May and Evan Silverstein of L.F. Rothschild, Unterberg & Towbin estimated that the risk premium demanded by investors rose materially, 80 basis points, in the two and a half years following the TMI incident. Thus, on a $100 million bond issue, the increased interest expense would amount to $16 million on a 20-year bond and $24 million on a 30-year bond. In 1984 alone, electric utilities that own nuclear plants issued $5.43 billion in long term bonds. An 80 basis point risk premium would amount to $1.3 billion on bonds issued in just that one year, assuming maturities were uniformly 30 years.

While a similar study has not been made on the impact of a continuing annual retrospective premium system, the result of such an analysis would most certainly be similar to the post-TMI accident situation. In testimony before the House Subcommitte on Energy and the Environment, Mr. Carl H. Seligson, Managing Director of Merrill Lynch Capital Markets, noted that because even the best-managed companies, ones that had nothing to do with an accident, could face open-ended liability under the NRC proposal for an annual retrospective premium system without a per incident limit, investors would demand a greater reward. The cost of capital -- and the cost of electricity -- would rise for all nuclear utilities and their customers.

(b) Other major industries, such as the airline industry, the auto industry, and the chemical industry, for example, must attract capital and have no limits on general tort liability. To what extent does the existing cap on nuclear liability distort the operation of the market in allocating capital among industries competing for capital, and therefore represent a subsidy to the nuclear industry. Is the value of the subsidy the amount estimated in (a)?

The electric utility industry provides a necessary and essential service and is regulated as a natural monopoly because in most instances one company is the only supplier of that service in a given area. Both economic and safety regulation are comprehensive, whereas the airline industry, the auto industry, and the chemical industry are largely unregulated and are free to charge whatever the market will bear. Thus, unlike these other industries, the electric utility has a cap placed upon its earnings which are insufficient to compensate it for unlimited risks. More importantly, there are recurring claims in those other industries, so that reasonably accurate predictions regarding future liability costs are possible and can be reflected in current pricing. If our government and our industry are correct about nuclear power safety, then any factor in excess of prepaid liability insurance costs would overstate the real risk.

If the industry were subject to "unlimited liability," bankruptcy after an accident would be assured and nothing would be gained. Following reorganization, claims would be only partially paid, if indeed any funds remained after senior claims were paid. A liquidation bankruptcy might be possible in the airline, auto, and chemical industries, but electric utility service must be provided by a successor irrespective of the financial health of the debtor company.

The electric utility industry has limited resources and limits on both its ability to raise capital and to earn. Ultimately, the source of revenues to meet any obligation is electric customers. Even if dividends are omitted and the stockholders seem to bear losses in the first instance, the customer pays in the final analysis because the cost of money over time will reflect risks imposed on investors. The ultimate source for all funds is the customers. This is perhaps most obvious for consumer-owned and publicly-owned utilities, but is equally true for investor-owned companies. Price Anderson is not a subsidy to the nuclear industry because it reflects expected experience -- no accidents exceeding the two layers of insurance. Costs for those two layers are already reflected in the cost of service and the cost of money. Moreover, Congress may reimburse the Federal Treasury through a special tax after the fact if it ever appropriates funds in excess of insurance to pay claims arising out of licensed activities.

4. Q. A question often asked by members of the public is "If it's so safe, then why is there a limit on liability?" Would public perception of nuclear power improve if the industry put a financial commitment behind its assurances of safety?

A. The nuclear industry has already put a substantial financial commitment behind its belief in nuclear power safety. In the case of nuclear utilities, each company has wagered its future on the avoidance of a major nuclear accident. That is, were an accident to cause major offsite consequences, it necessarily would already have caused severe damage to the plant. The investment in the nuclear power plant would be a total loss. Extensive cleanup and decommissioning expenditures would also be necessitated. A utility that experienced such an accident might be adequately covered for decontamination at today's nuclear property and decontamination insurance policy limits, but, given the size of the investment in a nuclear power plant, it would not be fully insured for the loss of the assets. Moreover, in such a scenario, the utility would be unable to meet bondable property requirements to support the issuance of mortgage bonds. Further, it would experience a severe drain on operating cash since it would have to purchase replacement power. The utility would undoubtedly face severe difficulties in short-term borrowing and probably would be unable to sell stock either. There is a strong likelihood that such a company would rapidly become insolvent and would be reorganized under the bankruptcy laws. In that sense, each nuclear utility has "bet the company" that it will not have a nuclear accident affecting the offsite public.

In addition, even if it does not have an accident, each licensee for a nuclear power reactor has made a substantial financial commitment evidencing its faith in other licensees in accepting up to $5 million per licensed reactor per nuclear incident in retrospective premium adjustments under the 1975 amendments to Price Anderson. The industry is prepared to accept amendments that would mean substantial increases in the maximum assessment, perhaps as high as $15 million per reactor per incident. These retrospective premiums would become payable in the event that damages from a nuclear incident at any licensed power reactor should exceed prepaid nuclear liability insurance. Moreover, many licensees have accepted similar retrospective premium obligations for primary or secondary nuclear property insurance or nuclear replacement power insurance, which may be likened to a wager that such losses and expenses will be infrequent.

We are not aware that these significant evidences of industry confidence in nuclear power safety have had any effect one way or the other on public opinion regarding nuclear power. Accordingly, we cannot say whether even greater commitments would affect public opinion nor in which direction.

5. Q. Would the retrospective premium system be improved or more equitable if the responsible utility and/or parties were responsible for a larger share of the retrospective premium funds than the other utilities?

On first impression, many persons would probably agree with the proposition that the responsible utility or other responsible party should bear a larger share of nuclear liability costs -- in the form of a "deductible," larger retrospective premiums or otherwise -- than those licensees in no way responsible for nor in a position to prevent a nuclear accident. However, nuclear liability insurance, by Act of Congress, must be universal in its application -- anyone who may become liable is an insured. This "omnibus" coverage is unique and assures the public that the responsible party, who might have been uninsured or underinsured without Price Anderson, is able to respond in damages to the same exent as if that party had itself maintained the largest policy available for that risk. Since Congress created the Price Anderson system and mandated that power reactor licensees maintain the maximum insurance available from private insurers on an omnibus basis, there is no other source of nuclear liability insurance for risks in the United States. All persons involved in providing goods or services for nuclear power plants have done so based on Congress' assurance that they need not attempt to separately insure their own liability exposure or include a liability risk factor in their pricing. Similarly, no electric utility has access to another source of insurance for nuclear third-party liability claims.

In the totality of these circumstances, there is no source of funds for vendors, suppliers or utilities to fund nuclear liability claims that are not insured under Price Anderson. Nor is so-called "self-insurance" the answer, inasmuch as the responsible utility would almost certainly be bankrupt in any event if offsite claims were so large as to exceed prepaid insurance, and other parties were induced to forego both insurance and self-insurance against nuclear liability risks.

The notion of "fairness" might seem better served by greater variation of insurance premiums, including retrospective premiums. However, any such approach seems to have more drawbacks than advantages. For example, making retrospective premiums a function of pre-paid insurance premiums, *i.e.*, some multiple of prepaid premiums, cannot reflect actual experience unless predictions turn out to have been accurate. In the absence of sufficient claims data from which to infer liability rating factors that would result in significant differences in prepaid nuclear liability insurance premiums, even the primary insurers are unable to derive a basis for establishing more than modest premium variations between licensed facilities. As already pointed out, retrospective adjustments in post-accident premiums for the licensee responsible would likely defeat the purposes of Price Anderson to assure that funds will be available to pay claims, since that licensee would likely be insolvent after a very large accident.

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May 30, 1986

The Honorable Robert T. Stafford
Chairman
Committee on Environment and Public
 Works
United States Senate
Washington, D. C. 20510

Dear Mr. Chairman:

As a follow-up to the Committee hearing on the Price-Anderson Act, you provided questions to be answered by Mr. William S. Lee, Chairman and Chief Executive Officer of Duke Power Company, who appeared on behalf of the Edison Electric Institute.

Enclosed are Mr. Lee's responses to the questions, which he asked me to forward to you. Please contact me if you need any further information.

Sincerely yours,

John J. Kearney

John J. Kearney

JJK:jam

Enclosure

cc: Mr. Jim Curtiss

QUESTIONS OF SENATOR ROBERT T. STAFFORD
FOR WILLIAM S. LEE, DUKE POWER COMPANY (ON BEHALF OF ANEC, EEI) REGARDING REAUTHORIZATION OF THE PRICE-ANDERSON ACT

1. (a) Should the victims of a nuclear incident receive full compensation for their injuries?

ANSWER

Yes, there should be full reimbursement of actual losses.

(b) Should full compensation include non-economic damages such as pain and suffering, as measured by traditional tort law?

ANSWER

The answer to this question depends upon what kinds of non-economic damages are under discussion and also upon whether there are sufficient funds available to pay non-economic damages of all kinds. We have already addressed punitive or exemplary damages.[1] Such damages are illogical in a heavily regulated industry, one where the government has a full range of tools available to detect violations and impose sanctions, including suspension or revocation of licenses, civil penalties, and criminal penalties. It makes no sense to leave the question of the appropriate standard of care, violation of which warrants punishment, for the handling of nuclear materials or the operation of nuclear facilities to a jury under instructions that they are not bound by, nor need they consider, compliance with applicable safety regulations. There is widespread recognition that jury awards for pain and suffering, emotional distress, and loss of companionship are often disproportionate to actual loss or culpable conduct. While we do not propose treating nuclear claims differently in all cases, it makes no sense to us to eliminate any possibility of controlling such awards at any level. The Congress has already recognized that some kinds of non-economic losses are less socially important than compensatory damages when the two compete for the same dollars. Thus, subsection 170.o permits a Federal District Court to establish priorities among types of claims and classes of claimants, and the legislative history indicates that compensatory damages should be given preference.

It simply cannot be assumed that resources at the time that a very unlikely accident does in fact occur will be essentially limitless. There may be other national priorities that are even more compelling (in time of war or other national emergency for example), or the accident may have been precipitated by unforeseeably severe natural phenomena that caused widespread damage and dislocation unrelated to the nuclear accident. As discussed below, it has always been the premise of Price Anderson that government would do its best to provide full compensation, but no responsible government should promise to spend an unlimited amount of money which it may not have for some kinds of damages over and above actual losses in preference to providing for other, more compelling needs.

1/ See Mr. Lee's responses to Senator Simpson's questions, attached to EEI's December 23, 1985 letter to Mr. James Curtis, at p.4.

2. A limit on the liability of responsible persons means that others who would not ordinarily be liable will have to pay for damages above the limit. On the one hand, you advocate that there be limited liability for responsible parties. On the other, you criticize the annual retrospective premium system for making persons pay even though they were not responsible. In addition, you oppose Amendment #770, making those who were responsible pay more than those who were not responsible. If you believe that, for damages above a limit, those who were responsible should not pay and that it is unfair for those who were not responsible to be forced to pay, then who is there left to pay for those damages above the limit?

ANSWER

It has always been the case under Price Anderson that the Federal government serves as the source of compensation of last resort. The Congress, in 1956 and 1957, heard testimony regarding the economic obstacles to private investment in nuclear power and concluded that, if it wanted the private development of nuclear energy to take place, it would have to limit industry's liability and itself undertake to provide compensation in excess of that limit for the life of the facilities licensed while the Atomic Energy Commission's (now the NRC's) authority was in effect. The Supreme Court favorably analyzed this feature of the law in its 1978 decision in Duke Power Company v. Carolina Environmental Study Group.

We do not criticize the retrospective premium system itself on the ground that it makes persons pay who were not responsible; the system functions as insurance so long as the insurance obligation is limited (as is any insurance obligation) and reasonable in amount. We do criticize any bill or amendment that would breach the Federal government's contract with those who were induced to invest in nuclear power in return for insurance coverage co-extensive with liability exposure and would also breach the government's promise intended to be relied on by those who provided goods and services to the nuclear industry without their own insurance because all available insurance had been assembled into a pool providing "omnibus" coverage. The system created in 1957, and amended in 1966 and 1975, is far superior to our conventional tort system which, it is widely acknowledged, is out of control. The system was far ahead of its time in assuring prompt payment of legitimate claims and in insuring everyone at a reasonable cost despite the low probability, potentially high consequence nature of the risk. The system would be destroyed by legislation that would create a demand for separate insurance, as would any proposal to abolish the principle of liability coverage co-extensive with risk.

It was the Federal government's decision to embark on a nuclear power program; the Federal government licenses the plants and regulates nuclear power safety. The industry itself must of course build, operate, and maintain safe plants, and must accept its responsbility. But the Government cannot ignore its own role and shift the entire burden to industry. At the same time, we are well aware that the Treasury would have to be reimbursed, and do not seek an exemption for those covered by Price Anderson from appropriate tax legislation that might be enacted after excess claims, if any, are paid. (See answers to Senator Simpson's questions, note 1 above, at pp. 1-3).

3. There are no limits on liability for on-site property damage (estimated to be $ billion at TMI) or for contractual damages ($750 million at the South Texas Project; alleged to be around $950 million at Midland).

(a) Should there be any limits on liability for contractual or on-site damages?

ANSWER

There are limits on liability for on-site damages caused by a nuclear accident because the companies that have this exposure have covered it in their contracts. Congruently, the nuclear property insurance policies permit waiver of claims in advance of loss and also waive subrogation. In this way, the on-site property exposure is largely channeled to the utility, as it is under Price Anderson. The scope and effectiveness of such contractual protections for on-site property losses were at issue in one case, but the matter was settled before decision. The construction claims are like any other construction claims, as to which there is considerable body of claims experience and a "conventional" insurance market. Such claims have nothing to do with low-probability, high-consequence losses.

We see no need for Federal legislation governing liability for on-site property losses as a result of a nuclear accident since the parties involved are in privity of contract. Nor do we see any need for Federal legislation governing construction claims.

(b) Has the absence of limits on liability for on-site damages or contractual damages deterred contractors, suppliers, and subcontractors from participating in nuclear projects?

ANSWER

Not to our knowledge. Most contractors seem to be satisfied with contractual protection and the waiver of subrogation by the nuclear property insurers. Contractors and subcontractors are very much concerned about third-party liability exposure, and we agree with the U.S. District Court and the Supreme Court that they would not have proceeded without coverage coextensive with their third-party liability exposure as provided by Price Anderson's omnibus insurance and indemnity and by limitation on liability.

4. One of the original motivations for the Price-Anderson Act was the removal of an alleged deterrent -- the threat of crippling liability -- to the participation of private industry in nuclear power. The financial condition of the nuclear power industry is far different today than in 1957, when the Act was first enacted. Should an objective of the Act today be the removal of the alleged deterrent of crippling liability to industrial participation in nuclear power?

ANSWER

It is important to keep the legal and policy considerations applicable to possible future nuclear power plants separate from those applicable to plants that have been built under existing law. As to future plants, Congress is free to remove the deterrent to private investment or not: if it does not do so, however, there will be no new orders by U.S. utilities. As to existing plants Congress has already acted to remove the deterrent. Congress induced industry to invest in reliance on coverage at a reasonable cost coextensive with potential exposure. In return, industry has been not only responsive but more than cooperative in accepting the waivers of defenses in 1966 and a reasonable degree of industry-wide risk pooling in 1975. The present coverage remains in force for the life of all facilities that received construction permits prior to August 1, 1987, so Congress is not "writing on a clean slate." It should not destroy the system which provides better assurance of public compensation than any other, nor abrogate its contracts with nuclear utilities and its promise to the rest of industry as to existing plants.

5. The protection afforded by Price-Anderson is referred to as "omnibus," meaning that any person who might be liable for public liability is indemnified under the Act. This includes persons that cause an accident through gross negligence or willful misconduct. Apparently, therefore, even terrorists and criminals are indemnified for public liability under the Act.

(a) Should terrorists, saboteurs, and criminals continue to have limited liability for public liability arising from acts of nuclear terrorism, sabotage, or other crimes?

ANSWER

Price Anderson uses state tort law to deliver compensation to members of the public who may have valid claims for damages. It would, of course, make no sense to preclude the flow of insurance funds to claimants because the responsible persons are culpable. Those culpable persons never "see" the money to pay claims; payments are direct from the insurers or the government to the claimant. Cutting off insurance coverage would in many cases leave claimants with no reimbursement, only meaningless rights against terrorists or saboteurs who either cannot be found, are deceased, or are judgment-proof. Nothing in Price Anderson insulates culpable persons from the full range of criminal or civil punishment provided by other Federal and state laws. Attempting to exempt saboteurs or terrorists from limitation on liability, while preserving the flow of funds to claimants by retaining them as "persons indemnified," would perhaps achieve some symbolic purpose, but would have no meaning in terms of governmental ability to incarcerate, fine, or otherwise punish, which would be to the same extent as under existing law. The price paid for such a symbolic, but meaningless, change might well be the creation of a loophole which would expose the non-culpable to unlimited liability, and lead to fragmentation of insurance.

(b) Should nuclear utilities continue to indemnify terrorists, saboteurs, and criminals for public liability arising from acts of nuclear terrorism, sabotage, or other crimes?

ANSWER

As noted in the preceding response, the recipients of compensatory damages are in no less need and are no less deserving because the source of their injury was a particularly reprehensible form of wrongdoing. While we have no difficulty with the law as currently implemented in this regard, we do think that there are many complex considerations involved in proposals to extend coverage beyond the scope of existing law, in such a way as to shift what are properly governmental functions and burdens to industry, or to remove or reduce existing disincentives to certain kinds of terrorist acts. For these reasons, we would urge that your Committee carefully scrutinize section 16 of S. 1225 as reported by the Energy Committee.

(c) Should the Price-Anderson Act be amended to exclude indemnification or limited liability, yet assure compensation, for acts of nuclear terrorism, sabotage, or other crimes? If so, how?

ANSWER

See the responses to the two preceding parts of this question. We have not seen a workable proposal to do this without compromising the present system. We have no proposal to make, other than to suggest that the subject of compensation for the consequences of terrorist acts should be approached on a coordinated basis for nuclear and other potential (and more likely) targets.

6. With respect to nuclear incidents that arise out of acts of gross negligence or willful misconduct:

(a) Should there be limited liability for persons that have committed acts of gross negligence or willful misconduct?

ANSWER

There should be limited tort liability. Price Anderson in no way insulates those with limited tort liability from NRC enforcement or from other criminal or civil punishment or penalties. Moreover, limitation on all liability is essential to the functioning of the system, permitting universal coverage. Exclusion of gross negligence (an undefined, elastic concept) might well lead to unlimited vicarious liability of employers, even though such employers may have exercised reasonable care in the selection, training, and supervision of employees.

(b) Should persons be indemnified for public liability arising from acts of gross negligence or willful misconduct?

ANSWER

For the reasons given in the preceding response and the response to question 5(a) and (b), there should be insurance and indemnity coverage.

(c) Should persons providing indemnification, such as the nuclear utilities, have a right of recovery of costs of indemnification against persons that have committed acts of gross negligence or willful misconduct?

ANSWER

No. It is a conceptual contradiction for one who stands in the place of a liability insurer to have a right of recovery against his own insured. Such a right of recovery would create a demand for separate insurance, and the economically powerful would be able to obtain it, thus fragmenting capacity. Such a step would also, in the event of claims, enormously increase transaction costs. Rights of recovery would tend to provide a disincentive for suppliers to share information with licensees, for licensees to share information with each other, and for either suppliers or licensees to share information with the NRC. It would tend to change a generally cooperative situation to a competitive one.

One of the advantages of Price Anderson is that it can deliver compensation efficiently, with lower transaction costs, under a single insurance policy, with litigation managed by a single defense team that can settle for all insureds, who do not have adverse interests toward each other. Rights of recovery would create adversary relationships, preclude joint defense, and lead to fewer settlements and more litigation.

7. With respect to incidents arising from activities of NRC licensees, your testimony supports a limit on aggregate liability with a Congressional review mechanism. The NRC has stated that it supports the Congressional review mechanism because, in part, "Congressional review would allow better tailoring of the compensation mechanism to the specific causes and consequences of the accident." The Commission stated that "appropriate sources of funds for additional compensation might include" the following: (i) the general public as taxpayers; (ii) the utility industry in general through the assessment of additional retrospective premiums; (iii) other participants in the nuclear industry such as suppliers and architect-engineers through assessment of charges after the fact; or (iv) the utility suffering the accident and other persons who may be liable for the accident through a reimposition of tort remedies without recourse to a limit of liability.

(a) Which of these sources do you believe could be appropriate sources for additional compensation?

ANSWER

Only the sources identified as (i) and (ii) in the question, with the qualification that, instead of additional "assessments" (which would probably be unconstitutional but in any event unfair), we would acknowledge that Congress would not be required to exempt electric utilities or nuclear electric generation from taxation designed to reimburse the Treasury for compensation of claims in excess of the subsection 170.e. limit. Both sources (iii) and (iv) would be inappropriate and probably unconstitutional as to existing plants (those that obtained construction permits prior to August 1, 1987). Suppliers and architect engineers were induced by Congress to participate in the privatization of nuclear power, in reliance on the explicit promise that they would receive coverage coextensive with their exposure. The utility suffering the accident received the same promise, invested in reliance on it, and has a contract to this effect with the Federal government. Other persons liable may or may not have a vested right in comprehensive coverage, depending upon whether Congress bargained for and received some action or forbearance on their part (such as not seeking separate insurance).

(b) Are there any constitutional problems, such as a violation of the separation of powers, a violation of the due process clause, a violation on the prohibition on bills of attainder, or a violation of other clauses, with assessments of sources (ii), (iii), or (iv) by Congress after an accident to compensate the victims of an accident?

ANSWER

See the response to the previous question. Congress may not take vested property rights without just compensation, nor may it abrogate the Federal government's contracts. See, *e.g.*, *Lynch v. United States*, 292 U.S. 571 (1934) (Congress may not repeal the statutory basis for valid insurance contracts between the United States and private parties, because the rights under such contracts are vested and protected against taking without just compensation by the Fifth Amendment.) 292 U.S. at 579-80.[2]

(c) Should Congress specify in advance the options available to it after the accident? Would this remedy the possibility of constitutional defects?

ANSWER

There is no reason why Congress should limit its options by stating too narrowly how it may reimburse itself. It could, of course, state what the law would be anyway: it can tax an appropriate class (*e.g.*, a sector of the economy) and need not exempt specific beneficiaries of Price Anderson from taxation even if they are members of that class. Stating an inappropriate reservation would not, of course, save an unconstitutional taking of rights that have already vested.

2/ *Lynch* was recently followed in a state law impairment-of-contract case: *United States Trust Co. v. New Jersey*, 431 U.S. 1 (1977).

(d) In modern times, determining liability and compensation after an accident has not been a function of the legislative branch of government. The Columbia University Legislative Drafting Research Fund, which has provided many recommendations on Price-Anderson that were incorporated into the Act, was highly critical of post-accident Congressional review mechanisms designed to assure prompt and equitable compensation after a catastrophic accident. "It seems highly preferable to provide for the consequences of a disaster before the event rather than to rely on the hope that adequate measures would be promptly enacted in the turmoil following the disaster. Such experience as we have affords no assurance that either industry or the public would be promptly or adequately taken care of by subsequent congressional action; in the case of the Texas City disaster, which may serve as a gauge of the speed and adequacy of what Congress might do, relief legislation did not come until eight years after the accident, and then it provided a measure of compensation which in many cases was grossly inadequate." Catastrophic Accidents in Government Programs, p.12 (1963). The Study recommended "a statutory remedy which is largely self-executing before a catastrophe occurs." Id., at 111. Please comment on these recommendations. Do you believe that congressional review is a reliable and equitable way to compensate victims of catastrophic accidents?

ANSWER

Yes, for claims in excess of a reasonable limit. The study referred to, by Professor Rosenthal and others, was of course not critical of Price Anderson, nor was it one of the three Legislative Drafting Fund studies on enactment or renewal of Price Anderson. What was under discussion in the Rosenthal study was indemnification of government contractors, under laws such as Public Law 85-804, for hazards not covered by Price Anderson, and whether indemnification "subject to appropriations" from the first dollar provided either contractors or the public meaningful protection. Price Anderson satisfies the criteria for a defined pre-accident system, but provides needed flexibility through the stopping point of a liability limit. The flexibility relates to priority of needs and resources. We know of no natural disaster in recent decades where the Federal government has failed to respond fully. Texas City can be cited as an example of slow, and perhaps parsimonious, claims processing under the Tort Claims Act and private bills, but not as a typical example of Congressional response to public needs.

8. In previous testimony, the nuclear utilities stated that an annual retrospective premium system, with no limit on aggregate liability, would impose artificial costs on nuclear power generation by making it more difficult to attract capital. Please give an estimate of the amount of such costs.

ANSWER

We have answered this same question in our response to Senator Simpson of December 23, 1985 (note 1 above) at pp. 5-8. Assuming that the nuclear risk premium would be similar to that following the TMI-2 accident, the cost of money might increase by about eight-tenths of one percent per year, which works out to about $1.3 billion per year on utility debt instruments alone at 1984 levels. It should be noted that this cost is indeed artificial, because if, as expected (or we would not license or operate the plants), no accident with major offsite consequences occurs, there is no way to obtain and distribute a "refund."

9. (a) Would it be less expensive for utilities to be required only to pay retrospective premiums, as opposed to the present system in which the utilities are required to maintain primary protection and secondary protection? Wouldn't such a system be less expensive because it would eliminate the profits of the middlemen, i.e., the insurance companies?

ANSWER

Interested as we are in saving money, we are also aware of our own capabilities and limitations. The nuclear industry needs the third party liability claims service experience and resources of the insurers for both primary and secondary coverage. Also, philosophically, when private insurance is available on reasonable terms and at a reasonable price, we think that it should play its customary role.

(b) What does it matter if the amount of primary insurance available is decreased by the insurance pools if the decrease will be compensated for by a corresponding increase in the amount of secondary insurance available through the retrospective premium system, considering that it is the nuclear utilities that pay the cost of the premiums for both the primary and secondary levels of protection?

ANSWER

It matters to ratepayers or stockholders because prepaid insurance is an allowable cost in our rate cases and non-recurring deferred premiums are by definition not in the test year on which investor-owned utility rates are based. Moreover, public and consumer-owned utilities generally prefer to avoid assessable mutual policies for first dollar coverage, so that their owner-consumers have more predictable costs (there are no stockholders to be left "holding the bag"). Moreover, there have been and will be a number of claims that do not involve major nuclear incidents that the insurers have the resources to handle on an industry-wide basis. Fragmentation of capacity would lead to inefficiency and fewer settlements, as discussed in response to question 6(c).

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